

OCTOBER 1954

50 CENTS



Murie



Hoyt



Dana



Keen

IN RECOGNITION OF OUTSTANDING  
SERVICE IN THE CONSERVATION  
OF AMERICAN RESOURCES  
OF SOIL, WATER AND FORESTS

PRESENTED BY  
THE AMERICAN FORESTRY  
ASSOCIATION

SEPTEMBER 6, 1954

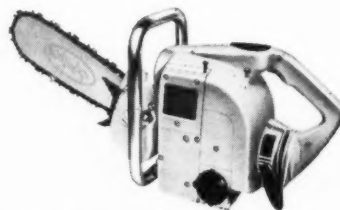


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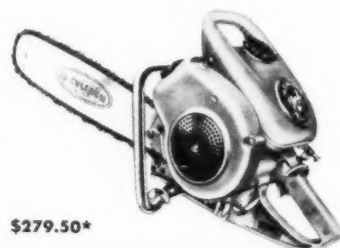
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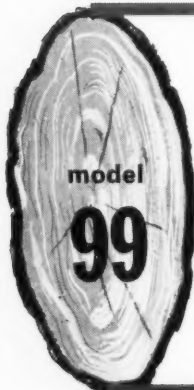
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More than 5,100 tree farmers operate about 30 million acres of timberland on a perpetual yield basis. All forestlands owned by Weyerhaeuser Timber Company are managed as certified tree farms. Write us at Box A, Tacoma, Washington for your free copy of our interesting and colorful booklet, *Tree Farming in the Pacific Northwest*.

## Weyerhaeuser Timber Company



Volume 60  
No. 10  
October, 1954

# American FORESTS

James B. Craig, Editor  
Marian E. Fadeley, Editorial Assistant

Keith R. McCarthy, Assistant Editor  
James J. Fisher, Art Director

PUBLISHED BY THE AMERICAN FORESTRY ASSOCIATION

## CONTENTS

WHAT'S NEWS ACROSS THE NATION .....	5
EDITORIALS .....	7
ALASKA'S ACRES AT WORK AT LAST .....	8
KETCHIKAN'S "CATCH"—THE NEW PULP MILL .....	12
FROM TEACHER TO TIMBERMAN .....	14
THRUWAY AND SKYWAY .....	16
DID YOU EVER PET A COON? .....	19
WILL FOREST FIRE INSURANCE WORK? .....	20
WESTERN EUROPE WELCOMES INVASION OF DOUGLAS FIR .....	22
THE INDIAN AND THE FOREST .....	24
FOR DISTINGUISHED SERVICE .....	26
NORTHWEST REDISCOVERED .....	28
MEET YOUR CANDIDATES .....	34
THE CONSERVATION CARAVAN .....	36
READING ABOUT CONSERVATION .....	58
WASHINGTON LOOKOUT .....	61

**COVER** • The five gentlemen pictured on our cover are recipients of this year's Conservation Awards, plaques presented annually by The American Forestry Association to individuals who have made outstanding contributions in the field of renewable natural resources. The winners, who were honored at AFA's annual meeting last month in Portland, Ore. are: Frederick Paul Keen, entomologist for the California Experiment Station of the U. S. Forest Service; Palmer Hoyt, editor and publisher of the Denver Post; Dr. Olaus Johan Murie, president of the Wilderness Society; Dr. Samuel Trask Dana, dean emeritus of the University of Michigan's School of Natural Resources; and Reuben Buck Robertson, chairman of the board of the Champion Paper and Fibre Company.

### THE AFA

The American Forestry Association, publishers of AMERICAN FORESTS, is a national organization—-independent and non-political in character—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation. Its purpose is to create an enlightened public appreciation of these resources and their part in the social and economic life of the nation. Created in 1875, it is the oldest national forest conservation organization in America.

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## Letters

### Forestry's "Big Three"

EDITOR:

My compliments to you for your editorial "Forestry's Big Three" in the September issue of AMERICAN FORESTS. The AFA has an opportunity to fulfill its place in American forestry. It appears that it may now have the strength and vision to do the full job. Certainly, it is the one organization which should be able to best plan ways to plug the several big "gaps" in forestry's main line.

Neither the State Foresters Association, United States Forest Service, the Society of American Foresters, the Forestry colleges nor any single private forest-land owner group is so well qualified to appreciate national problems and to find solutions for them as AFA. Your proposal to call a series of regional meetings, to focus attention on specific problems and consider corrective measures, should prove a valuable move.

The editorial is good and the program that inspired it is equally sound and forward moving. May I echo the comment "Now go to it!"

**Perry A. Thompson**  
Secretary-Manager  
Western Lumber Manufacturers, Inc.  
San Francisco, Calif.

### Conservationists at Heart

EDITOR:

We resent deeply the implications of distrust of any "stockmen proposals" in these two statements in your editorial on page 31 of the July 1954 issue.

"At the same time he was voicing the deep-seated skepticism the AFA has had in years passed for any proposed legislation pertaining to stockmen."

"Nor can these bills be dismissed as 'stockmen inspired' in this particular instance."

However, we are happy to say that the cattle industry has not been taken in as you apparently have by socially-inclined bureaucratic efforts to discredit another industry, even though we also have been submitted to "horrible examples" of the devastation wrought by "unregulated lumbering."

We still believe most lumbermen like most cattlemen are conservationists at heart and far more interested in the future of the natural resources upon which their industry is founded than is any bureaucrat.

**Radford Hall**  
Assistant Executive Secretary  
American National  
Cattlemen's Association  
Denver, Colorado

### Awards First Rate

EDITOR:

... It appears to me that this year's recipients of the Distinguished Service Awards of The American Forestry Association are absolutely a first rate group of men.

**Charles Collingwood**  
CBS Television  
New York 22, N. Y.

(Turn to page 4)





With 1 1/4-yd. standard bucket or bulldozer blade, the busy HD-5G builds and maintains access roads, clears away snow from roads, yards, landings.



With interchangeable lift fork the tractor can be used for loading, unloading or carrying logs, stacking lumber, handling poles, pipes, etc.

## See how the multi-purpose tractor shovel mechanizes many forest jobs

The versatile Allis-Chalmers HD-5G Tractor Shovel builds and maintains roads, dozes out or plows fire lanes, bunches toppings, clears out underbrush, excavates and loads dirt and gravel, handles logs, does dozens of jobs with savings in labor and money. Because of wide application, it saves on equipment investment. Let your Allis-Chalmers industrial tractor dealer tell you more — and *show* you what the HD-5G can do for you.



It clears out brush, bunches toppings, handles many clean-up and maintenance jobs in the woods. Rear-mounted winch adds to tractor's usefulness.



The HD-5G excavates dirt or gravel, and carries it to where it is needed or loads to trucks for longer hauls. Bucket dumping height of 9 ft. allows easy loading of high-body trucks.



The HD-5 has plenty of power (50 belt hp.) and weight (11,250 lb. — bare tractor) for pulling fire plows, trucks, other equipment.

**ALLIS-CHALMERS**  
TRACTOR DIVISION • MILWAUKEE 1, U. S. A.

## Letters

(From page 2)

### Texas Study

EDITOR:

I have read with much interest in the August issue of *AMERICAN FORESTS* the analysis by Dr. H. H. Chapman of the Texas National Forest Study, published by the East Texas Chamber of Commerce.

Dr. Chapman starts his analysis by stating that the statistical facts cited in the study are in every instance accurate, yet the conclusions drawn from the data are totally inconsistent with these facts. That is Dr. Chapman's opinion, and he is entitled to it. I presume that there are many AFA members who would agree with him. I have read the Texas Study and I disagree with Dr. Chapman. I believe that the conclusions drawn from the data presented are well justified, and I further believe that many other AFA members, if they had carefully read the report, would agree with me.

In other words, this is a very controversial subject. It being so, in all fairness to your readers, you should have presented both sides of the story in the same issue as you have done on other controversial issues in the past. You should have invited someone closely familiar with the East Texas forest problem to have read Dr. Chapman's comments and replied to them in the same issue. The least you can do is to give space to a reply in a future issue of *AMERICAN FORESTS*.

**Richard W. Smith**  
Manager  
Natural Resources Department  
Chamber of Commerce of the U. S.  
Washington, D. C.

(Editor's Note—If Mr. Smith will check the January, 1954, issue of *AMERICAN FORESTS* he will find that we published a pro and con story on this subject. When the Texas report was released we asked Dr. Chapman, as a distinguished student of forestry, to evaluate it. Dr. Chapman did exactly that. In his letter, Mr. Smith states that he disagrees with Dr. Chapman's conclusions but does not state why. Accordingly, we will be glad to publish any additional statement on this subject emanating from the Chamber of Commerce.)

EDITOR:

The East Texas Chamber of Commerce, by hiring a survey and report by a purported expert in an attempt to strengthen the case for their proposal to sell our national forests to private interests, only intensified and further aroused the opposition and indignation of the great majority of the people.

Their miserable attempt to show that these forests have operated at a financial loss to the government by a schedule which omits present inventory value as an asset, while charging original cost as an expense, is only one of the instances which discredit the fairness of this report to anyone with an open mind.

The effort to deceive the uninformed by suggesting sale of 160-acre homestead tracts is equally obvious. Anyone acquainted with the type of land in the pine forests of east Texas knows its unsuitability for farming,

Small owners could not make a living under sustained yield operation; and a reasonable appraisal would put the purchase price out of reach to all but persons of substantial means.

Our economy in the forest counties benefits so tremendously from the annual payments from timber sales in lieu of taxes and the availability of timber for our small sawmill operators in free, competitive bid sales, that nearly all of us feel the national forests are a boon to free enterprise.

When all the forest lands of east Texas were unfenced their millions of acres constituted one of the greatest hunting areas in the nation. In recent years, with stock laws and stringent trespass laws, all the privately owned woodlands have been fenced and posted. Fortunately, the government had, during the middle 1930's, established these national forests, covering 658,000 acres in 11 counties and preserved for the public the only large recreational area within easy access of the thickly populated sections of Texas. All the people appreciate the fact that these forests provide for the fullest development of fishing, hunting, swimming, camping, picnicking and scenic drive facilities. 752 acres of lakes and hundreds of miles of rivers and creeks plus two large game areas have been restocked, and outing facilities are continually being enlarged and improved. Their popularity is attested by the more than 300,000 visitors from outside, including 17,000 hunters and 25,000 fishermen using them last year.

Sportsmen and wildlife associations, conservation groups, women's clubs, school organizations, civic clubs, local Chambers of Commerce, newspapers, press associations, veterans and firemen groups, merchants and lumbermen have joined city and county governments all over Texas in expressing their opposition in no uncertain terms to the sale of these national forests, and we feel confident that our Congressional delegation from Texas will reflect these views.

We have seen the devastating results of private operation of these same forests in the past. Their restoration as a great economic asset to this region and the nation has been an enlightening revelation. We want their benefits to continue forever, and we know that our only assurance of that is continuance of federal ownership.

**Albert K. Daniel**  
County Judge  
Houston County, Texas

### On The Baker Bill

EDITOR:

I have read with interest the letter from Leo Bodine to you dated June 11 in re H. R. 8225. Mr. Bodine has sent this to me (and I presume to all Directors) for comment.

I would be interested in your reply to Mr. Bodine in view of Lowell Besley's report to the Directors of April 6 in which he made this statement:

"It seems to me The American Forestry Association should support H. R. 8225. The Department of Agriculture has taken no official stand on it as yet but sentiment of

the Forest Service men with whom I have talked seems to be in favor. In view of the resolution adopted at the joint meeting of the Executive and Finance Committees April 3, 1953: 'RESOLVED, That this Committee agrees in principle with the position taken at the Committee hearings on the Baker Bill, H. R. 1972, but it feels the need for more funds for the administration of recreational and wildlife purposes in the national forests is so great that, in the event Congress fails to provide adequately for this work, the Association shall have to take a realistic approach and promote the earmarking of a portion of the national forest receipts for maintenance of the recreational areas and for the protection of wildlife.'—our stand seems clear as definitely in favor of H. R. 8225."

**S. G. Fontanna**  
Dean, School of Natural Resources  
University of Michigan  
Ann Arbor, Michigan

(Editor's Note—Dean Fontanna is correct when he reports that the Executive Committee of the AFA on April 3, 1953, resolved that the recreation and wildlife needs on national forests are so great that unless Congress provides for this work, the association will have to take a realistic approach and promote earmarking of a portion of national forest receipts for that purpose. However, *AMERICAN FORESTS* was in error when it reported editorially that Rep. Baker's H. R. 8225 is not an earmarked measure. A re-reading of the bill shows that it is although the measure would be subject to annual budgetary review. Nevertheless, on the basis of comments and letters received, a majority of members apparently are prepared, in the absence of any other efforts to relieve the recreation and wildlife needs on the forests, to support this legislation.)

EDITOR:

I am heartily in favor of your proposed program as reported in your editorial of August, 1954, to wake up the country as to the industrial revolution in the South.

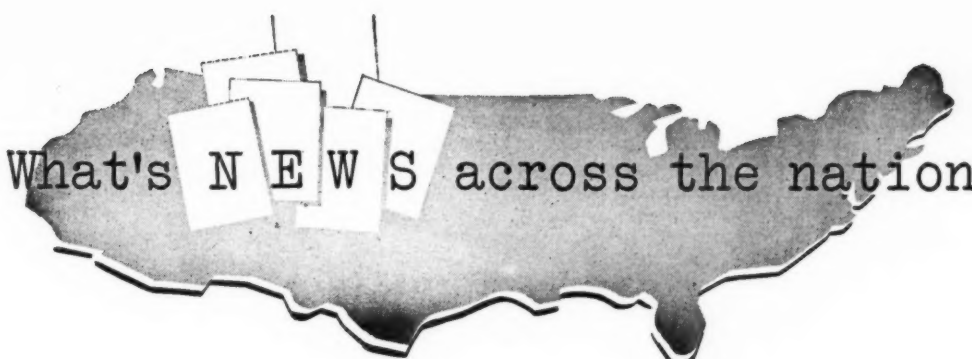
**E. F. Conger**  
Staunton, Virginia

EDITOR:

I approve your Southern forestry study. Our firm this year celebrates its 75th anniversary of service as a lumber company and I am reminded that when I became associated with our founder, the late Lafayette Moore in 1906, several of my friends advised that I should not go into the dry kiln business because most of the large tracts of timber in the South were exhausted and lumber would gradually pass out. Now, 48 years later, I find there are more young trees being grown both in the South and on the West Coast (yes, we now have firms in both regions) than in 1906. I feel that The American Forestry Association has contributed much in bringing this about.

**Charles J. Williams**  
Moore Dry Kiln Company of Oregon  
North Portland, Oregon

(Turn to page 60)



## What's NEWS across the nation

THE WELCOME MAT WAS OUT IN OREGON AND WASHINGTON LAST MONTH AS AFA MEMBERS trooped to Portland for the first Northwest meeting of the association in 79 years. Sample comments from leading Northwest newspapers included: The Oregonian, Portland—" . . . The American Forestry Association, the oldest conservation group in the country, may well feel proud that its members of 80 years ago and since have played an influential part in changing what was once a notoriously unstable industry into one that now bids fair to be as permanent as any on earth"; Seattle Post-Intelligencer—" . . . The 79-year-old movement of The American Forestry Association . . . pulling together constructive interests of forestry-minded citizens and the timber industries . . . interpreting one to the other . . . is one of the reasons you hear less and less from the old-time professional-political "conservationist" out to save votes, not trees"; The Oregon Journal—" . . . And don't wait 79 years to come again!"

ANOTHER CORDIAL WELCOME WAS EXTENDED BY INTERIOR SECRETARY McKAY, former governor of Oregon. While previous commitments prevented his attending the conclave, the Secretary stressed in a message to delegates that field trips planned "should furnish you, I believe, with renewed determination to continue the outstanding conservation work of The American Forestry Association." Secretary McKay also said that "it is impossible to do a proper job of forestry without a real working partnership of the States and local communities, the Federal agencies managing Federal forests, and private citizens who own and depend upon forests for their livelihood. The work of your Association in helping to bring about this type of cooperative effort has been invaluable."

POPPING EYEBALLS DEPARTMENT: AS OREGON JOURNAL "BUSINESS PARADE" COLUMNIST Lemar New- kirk reported "Eyeballs could be heard popping for miles when visiting AFA delegates toured Crown Zellerbach's Clatsop tree farm. . . . The arrangements committee knocked itself out—had two herds of elk parade by the loaded busses, earning Chairman Edward P. Stamm, the title of 'elk herder supreme'." Nor was that all. A number of easterners readily admitted that watching leaping salmon swarm up the fish ladder at Bonneville Dam was "the biggest thrill they had ever had." The fish put on a grand show with several of them making leaps of four feet and more into the air. The action on the ladders started September 1, but wouldn't hit full stride until the middle of the month, wildlife specialists said. Another impressive show was provided by the 50-ton Berger Grapple Crane at Crown's Camas mill. The giant claw plucked rafts of giant Douglasfir logs out of the water and laid them down with a deftness that was almost uncanny, all reminiscent of a giant human hand. Equally impressive were the hand signals of boss sawyers watched at Weyerhaeuser's big Longview plant. The whine of the saws is the music produced by these "Toscanini's of the Tall Timber."

JUDGING BY THEIR COMMENTS, PROBABLY THE ONE WESTERNER WHO IMPRESSED MEMBERS of the eastern contingent more than any other was George Neils, of the J. Neils Lumber Company, at Libby, Montana. As reported by Mrs. Dolly Belasco, of Darien, Conn., "Mr. Neils told us his company had to leave Minnesota in the old days because they had cut everything in sight but that out here they are trying to do

(Turn to next page)



better. They are too because we saw some of the things they are doing in forestry. Apparently Mr. Neils is a sort of homemade forester. At any rate, I could understand forestry as he explained it—beetle traps and so on. Also, some 40 miles or so of his managed timber apparently is in some danger from possible dam construction. When you hear about things like that from people like Mr. and Mrs. Neils it makes you want to do something to help them."

DAMS ARE CONSTANTLY IN THE NEWS IN THE NORTHWEST AND ROCKY MOUNTAIN REGION, the visitor quickly learns. With newspapers full of President Eisenhower's flight over the controversial Echo Park Dam site in Dinosaur National Monument on September 4, one Denver friend of the AFA good-naturedly suggested that the association now carry out an "agonizing reappraisal" of its previous stand on this knotty problem. Most westerners, easterners learned, have a healthy habit of letting you have it right between the eyes as to their opinions. At the same time their good nature is as expansive as their fine country and there is little cynicism in their makeups.

GOOD TITLE FOR A STORY WAS SUGGESTED BY AFA MEMBER ROMAN S. GORSKI, an economist from New York City, when he said that the big operation starting on Crown Tree Farms and ending at the big specialty paper mill at Camas should be called "From Trees to Tissues." When he made his comment, Mr. Gorski was inspecting some of the tissues and towels now used in most American homes. Very impressed by all the things he had seen, Mr. Gorski commented, "We don't know enough about the SOURCES of things in places like New York. We forget that all the products we use have to start somewhere and that its all a big endless chain. That's why I'm all for trips like this."

ONE OF THE BIGGEST HITS AT THE CONVENTION WAS A DISPLAY PROVIDED BY R. J. Pontzer, of St. Mary's, Pennsylvania. Mr. Pontzer, a cabinetmaker, exhibited 160 plates turned from as many species of United States woods. Delegates were invited to hazard guesses as to the identity of one mystery plate. A lot of experts guessed wrong. The winner, William Hagenstein, of the Industrial Forestry Association, got it right and won the plate. The species? Honeysuckle.

ART GREELEY, ALASKA REGIONAL U.S. FORESTER, FLEW FROM JUNEAU for AFA's first Northwest meeting. Alaska is a land of great opportunity, he thinks. Some production problems can be seen looming on the horizon but Greeley has great faith in industrial knowhow to solve them. With the establishment of several more mills, the territory will probably hold up on further industrial expansion for a while to provide an opportunity to study the situation, he thinks. In other words, they don't plan to go too fast at first.

DR. SAMUEL T. DANA, FOUNDER OF MICHIGAN'S SCHOOL OF NATURAL RESOURCES, got a long and deserved ovation when Awards Chairman Robert N. Hoskins tendered him his Distinguished Service Award. Previously, Dr. Dana had turned it down "because he was too active in AFA work." Denver also did itself proud when Hoskins went to that city to confer awards on Dr. O. J. Murie, biologist, and Palmer Hoyt, publisher. Dr. Murie received his award at National Jewish Hospital where he has been ill since his famous hike with Justice Douglas down the C & O Canal towpath. Said Leonard S. Smith, of the hospital staff, "This award will do Mr. Murie as much good as any of the wonder drugs." The ceremony was televised on Channel 4.

THE SHUTTERBUGS HAD A SUCCESSION OF FIELD DAYS ON AFA'S CONSERVATION CARAVAN and while working out of Portland. Glacier Park, Libby, Montana, Clatsop Tree Farm, Camas, Bonneville Dam, Multnomah Falls, Longview, Mt. Hood, San Francisco, Yosemite Park, and Grand Canyon were all high points on the trek. At Bonneville, the shutterbugs held their cameras poised for five minutes waiting for a salmon to leap, and were rewarded for their pains. A visit to the Mt. Hood Timberline Lodge was another highpoint for the ladies. A style show on the mountaintop was a feature of this event. The cameras also clicked when the group visited Portland's largest log cabin in the world.

BUT AFA HASN'T SEEN ANYTHING YET, ACCORDING TO X. L. PELLICER, ST. AUGUSTINE, FLORIDA, banker who will be general chairman of next year's big meeting at Jacksonville. And it must be admitted the plans he and his committee are lining up look mighty good.



# EDITORIAL

## Another First for AFA

For almost 80 years The American Forestry Association has walked proudly in blazing a conservation trail under a banner proclaiming that AFA is a "national organization — independent and non-political—for the advancement of intelligent management and use of forests and related resources of soil, water, wildlife and outdoor recreation." The AFA's key purpose, this preamble continues, is to "create an enlightened public appreciation of these resources and their part in the social and economic life of the nation."

That the association continues to follow these guiding principles in expanding its sphere of influence was strikingly shown last month when 300 people interested in conservation, including 74 members from east of the Mississippi, rallied in Portland, Oregon, for the association's first Northwest meeting in history. Perhaps the most noteworthy meeting in AFA history, Portland served as a springboard for launching our new Program for American Forestry and introduced our members, for the first time, to the forestry effort now being made in the Northwest Corner. A special Conservation Caravan that made a loop of western forests and parks with a stopover for the Portland meeting added further appeal to the event.

That our members were profoundly impressed by the examples of good forestry and related resources progress that they saw was due in large measure to a strong local committee, headed by Mr. E. P. Stamm, that had the full backing of Northwest forest industry and all other agencies in resources work. Thanks to a program that clicked like clockwork, our members now know why the Northwest has become a powerhouse for efficient forestry, why this potent region can and will contribute tremendously to activating our new program for forestry. As for our keenly-interested members who took part in this memorable excursion, we can only say that they were a credit to the AFA and the many states they represented.

## Job Well Done

Since the inception of the program in 1948, the Awards Committee of The American Forestry Association has been a consistently hardworking group and has made consistently good awards. But judging from comments that have been received since our Portland meeting, the committee's 1954 Awards choices—Dr. S. T. Dana, Reuben B. Robertson, Frederick Paul Keen, Palmer Hoyt and Dr. Olaus J. Murie—have hit some sort of jackpot in universal popularity. In fact,

the response to the awards this year has already been greater than all the other years put together.

This response should present tangible proof to Chairman Robert N. Hoskins and Committee Members Watkins M. Abbitt, Charles Collingwood, Milton M. Bryan, Dr. Paul D. Sanders and Dr. M. D. Mobley, that their painstaking work of the past several years is now paying off handsomely in broadening the association's impact nationally. As Mr. Hoskins reported at Portland, five winners this year were selected from a field of 57 topflight candidates. Some of the nominations were accompanied by as many as 60 and 70 endorsing letters and the list of endorsers ranged from two Supreme Court justices to the officers of women's civic clubs. All which offers convincing proof that this program has succeeded beyond all expectations and that the awards have now become, as one western newspaper phrased it, "the most coveted in conservation."

## Today's Big Story

Interest on the part of professional writers in the conservation story is always cheering news to an organization that has long believed that this very articulate group of specialists can and should play an increasingly effective role in getting that story properly told. Accordingly, AMERICAN FORESTS was happy to accept a recent invitation to participate in the Third Annual Writers' Convention of the National Writers Club October 20-22 in Denver. Headed by Mr. David Raffelock, this is one of the better professional workshops in the country and its active Council includes such literary figures as Erle Stanley Gardner, Gene Fowler, Clyde Brion Davis, Palmer Hoyt, Helen McCloy, Josephina Niggli and many others.

To our mind, conservation is easily one of the biggest stories in America today. Primarily, it is a scientific story of new discovery and it calls for good reporting by good reporters. Up to now, relatively few professional writers have really explored the subject and they now have a very real opportunity in helping to bridge a gap that exists between our conservationists, who have a tendency to talk to themselves at times, and the public at large. However, writers who wade into the subject should be warned that conservation is an octopus with many tentacles and once they fasten onto the explorer they do not easily let go. In brief, writers who really dig into the subject will quickly learn that they have come to grips with one of the most fascinating and many-faceted subjects on earth.

**T**HEY dedicated a pulp mill on the 14th of July. The flag was raised. There were speeches. There was a memorable luncheon. Impressed visitors toured the plant while proud, and anxious, company officials guided the tours and hoped that all would go as planned. It was a time for congratulations and expressions of goodwill. All hands, industry, bankers, community, labor, and Government joined in wishing Ketchikan Pulp Company's new Alaska pulp mill a long and prosperous existence.

And well they might. For this costly pulp mill, modern in every respect, operated from gleaming control rooms by men who push buttons, backed by a 50-year contract for the purchase of national forest timber, is no ordinary pulp mill to the people of Alaska. Nor is it to the many people who have worked for years to bring it about. It represents a step in faith in the expansion of the pulp industry into an untried area and the development of Alaska in a new field. It represents a highly significant change in Alaska's basic economy. And it represents at long last the start of a major Alaskan industry that can put Alaska's scenic forest acres to work and can protect its own future by keeping those lands working.

It has not always been so.

Many people even today think of Alaska as a land of snow. Icebergia, some cynic called it, a land where Eskimos live in igloos and travel by dogsled when they cannot avoid travel. A land where the ports freeze over in the winter and there is little or no commerce for eight months of the year. Those who are a little more knowing vaguely recall hearing about other things, such as mining operations, some towns with paved streets, and fishing. Many Servicemen found out during the war that the winters really are cold, and parts of the land are dusty, and the mail is slow in coming—indicating great distances. No wonder many of these folks think there was ample justification for the derisive name, "Seward's Folly," which people called Alaska in all seriousness for many years.

To such folks it must seem utterly incongruous that Alaska now has one of the most up-to-date pushbutton pulp mills in the western hemisphere.

Time was when no one went to Alaska to live, only to make his fortune and get away from there. First the Russians. They exported furs, and doing so nearly stripped the coastal belt of fur-bearers, to bedeck the persons of the rich and noble in St. Petersburg. They left behind

several communities, some nearly enslaved native Alaskans, some limited starts at agriculture, and a firm claim to the vast area which William H. Seward was smart enough to buy when he was Andrew Johnson's Secretary of State. Then came English, and Poles, and Spaniards, and others, all seeking quick returns through exploitation and trade. They took some furs, some coal, many fish. They left names on the land and little else. Next came fishermen, often of Norwegian or Swedish extraction. They began to find places that looked a lot like their homeland. Among them began to grow the desire to return again and again, and then—to stay.

Each wave of visitors took back stories of the part of Alaska they had seen. The Russians told of fabulous but diminishing fur resources, of hostile Indians, of foggy, cold weather, of somber forests, and of a vast, depressing, barren land. No wonder the Russian government was willing to sell. The traders of all the visiting countries told of lonely native villages, of odd costumes and customs, of diminishing supplies of pelts, and of Indians more at home on the water than on the land. Other traders told of the hardship of life as the Eskimos live it. And more and more the returning visitors, particularly those who had been only

**Backed by a 50-year contract for the purchase of national forest timber, Alaska's costly new pulp mill proves that a major industry can put the Territory's forests to work—and keep them working**

# Alaska's Acres at Work..

**By A. W. GREELEY**  
*Regional U. S. Forester, Alaska*

along the coast, told of fish in all the waters and of bleak cold winters over all the land.

Thus it was "Seward's Folly." And save for the fish, and for the people who stayed in the country because there were fish, "Seward's Folly" it remained until the magic cry of GOLD! Again came a wave of visitors, again some took back a fortune but most took back only stories of the part of Alaska they themselves had seen. The tales lured other adventurers north to find more gold, to find copper, to find coal, to find oil. Again, some of the newcomers decided to stay. Yes, even to make farms in the land which by then had a reputation for homesick men, for reindeer, and tundra, and frost a few inches below the ground.

The most recent great influx of people came about during World War II when thousands upon thousands of Servicemen came and went, bound on war's unpredictable errands. They too returned home with

stories. And again the imagination of some struck a spark of response to this new land and they came back to stay when war's duties were done, bringing families and friends with them.

The fact of the matter is, there is not one Alaska but many. The GI who remembers snow and wind and 50 below temperature near Fairbanks is right. The summertime tourist by steamer and railroad who remembers gray days, some breathtaking scenery, and forests at the water's edge through the Panhandle; followed by heat, dust, and a bus ride on paved modern highways to see neat checkerboards of farmland in the Matanuska Valley is right too. Totem poles, kyaks, sled dogs, halibut boats, they are all there. But not one by itself is Alaska.

Neither is a big new pulp mill Alaska. But it, and others that are bound to follow, will have as profound an influence on the permanent peacetime pattern of man's life

in Alaska as have any of the means for exploiting natural resources that have gone before it.

Alaska has had a forest industry since the time of the Russians. In fact, there must have been something of an industry before the Russians came. For untold years, the Indians of southeastern Alaska depended on great logs for their seagoing canoes, and for the beams to support their larger houses. While the Russians were here, the rough-hewn lumber industry, manned by adventurers, convicts sent as colonists, and natives who were virtually enslaved, produced spars, decking, and other shipwrights' needs. For a while it also produced sawn boards cut in small sawmills, and even shipped to some extent in coastal trade. It also brought forth fuelwood, houselogs, even stockade material for forts.

As more people came to Alaska to fish, to mine, and to live, their changing needs were reflected in the character of the forest products in-

Stand of pulp timber on the Tongass National Forest in Southeastern Alaska



k...at Last

dustry and the products it produced. First came the material to supply the simple needs of the frontier. Sluiciboxes, mine timbers, tent frames, plank for wooden sidewalks, siding and framing for houses, rough planks for store counters and for bars in frontier saloons. Then came piling, and construction timbers for the fish canneries, and lumber for the buildings which sprang up on the shore to keep the fishing fleets in operation on the water. Also needed were large quantities of material for boxes in which iced-down salmon could be shipped or stored. In the supplies for the fishing industry and for the population that was resident in Alaska by then were the makings of a stable lumber industry. In the course of time, a fairly stable industry came to stay.

All during this time, though, the forest products industry was just something that was there, like the waterfalls, like the very trees of the forest, useful, necessary, but not a part of Alaska's basic economy. This was largely true even during the late war and afterwards when huge defense expenditures and subsequent military construction dwarfed previous Federal expenditures in Alaska and gave a booming local market to the lumber industry here. A notable exception, especially in recent years, has been the class of products made from high grade Sitka spruce lumber which are in such great demand that market conditions outside of Alaska are controlling.

Well, where does the pushbutton pulp mill fit into this story?

Here are some thoughts that are worth noting. Aside from military spending, fur, fish, and minerals have successively and in various combinations been the main supports of Alaska's economy. The fur resource was so seriously depleted before the United States purchased title that it has been the least important of the three ever since. And there is little likelihood that this situation will change in the future. Minerals, like will-o'-the-wisp gold, are where you find them. The mining industry in Alaska has had its ups and downs. It is an important segment in the economy and will continue to be, but no one can forecast with assurance what level of mining activity the Territory will have at any time in the future, or where the activity will be. Nor can anyone forecast with assurance how long activity will last at any given location. Something akin to the "boom and bust" economy seems to

dog the mining industry, and also to harass those political subdivisions whose economic well-being is bound closely with mining activity. The Territory needs an active mining industry and should do all possible to encourage it. But at any given time the Territory cannot tell how strongly to lean on this resource in laying plans for the future.

Dependence on the fishery resource has its problems too. There have been wide fluctuations in the take of fish. These ups and downs have not come because of changes in the market, but primarily because of fluctuations in the number of fish returning from the sea and hence available to make up the catch. A very large amount of effort is going into measures aimed at conserving and building up the fishing resource, and into research to learn answers to more of the complex questions about the factors that control fish numbers. As long as there is a substantial period in the life cycle of salmon when the fish are at sea and subject to many influences which are not even known, much less under the control of man, there will be ups and downs in this industry. Even the present enlightened program of fisheries management will have to work a long time to hope to eliminate these large fluctuations. That is the big drawback of this industry as a strong and stable base for Alaska's economy. Also a drawback is the fact that employment in fishing and packing is highly seasonal, with heavy need for labor in the summer and little or none in the wintertime.

Up until now, the relatively small forest products industry has had little weight in filling these great gaps in Alaska's economy. But this first pulp mill is making a long start in that direction. Others that are sure to follow will materially strengthen that start. There is no doubt in my mind that present trends will continue, and that within 15 years, and perhaps 10, the forest products industry of southeastern Alaska will take its place with the fishing and mining activities as a steady contributor to a solid economy for the Territory. It will do so with an annual output worth well over \$50,000,000 at the industry sales outlet level. It will provide yearlong jobs to many, and jobs for most of the year to many more. And it will have one marked advantage over the other two industries in the source of its principal raw material. Forests are renewable and forest

lands can be managed so that they are kept working. As the present old-growth stands are replaced by vigorously growing young stands, and as practical problems of extensive logging under Alaska's tough conditions are licked, it should be possible for this industry's capacity to expand with confidence that the wood resource will be there to supply it.

Now, let's take a glance at what this new pulp mill means to the forests of southeast Alaska.

The timber stands within the Tongass National Forest, which embraces just about all the commercial timber in southeast Alaska, are made up of western hemlock, Sitka spruce, western redcedar and Alaska cedar. About three-fourths of the volume is western hemlock, and about 20 percent is Sitka spruce. Merchantable timber occurs in a spotty manner with stringers or irregular patches of merchantable timber interspersed between areas bearing timber that is







This dam, located about three miles from Alaska's new pulp mill at Ward Cove, supplies the power needed to run the operation

not merchantable. The stands are overmature, and the timber is quite defective. Here and there among the hemlocks are stands or pockets of high quality spruce, and occasionally one encounters stands that have a good percentage of high grade logs. The rest of the timber is not now considered suitable for lumber, but is very well suited for use in fiber form.

The lumber industry of southeast Alaska has lived for 50 years and more on just the spruce. Western hemlock has been an unloved country cousin because of its definitely poorer quality and because hemlock lumber has been much harder to sell than spruce. In fact, for many of those years there was practically no market at all for lumber made from western hemlock, in Alaska or elsewhere. Yet no comprehensive management of these national forest lands could be undertaken until the hemlock could be moved at a profit.

For all these reasons, the U. S. For-

est Service has tried with might and main to attract pulp operations to the Tongass area. Forty-four years ago, in 1910 to be exact, a proposal backed by Norwegian capitalists was given serious study but was dropped because the Norwegians wanted to have sizable areas virtually handed over to them. Timber for a pulp offering was advertised in 1913, and two bodies of pulp timber were offered in 1917. Immediately after World War I there was another flurry of interest. This resulted in the building of what would now be classed as a small pulp mill by the Alaska Pulp and Paper Company on the Speel River near Juneau. It operated for nearly two years but had to close down because costs were too high for the price at which the product could be sold.

During the Twenties there were long-continued investigations by industry people as well as Forest Service men. This interest resulted in five applications for water power

development and a supply of pulp timber. Two offerings were advertised in 1927, one near Juneau and one near Ketchikan. The former was conditionally awarded to George T. Cameron of San Francisco; the latter to the Zellerbach Paper Corporation. These hoped-for developments were victims of the depression. Again during World War II, there was a period of great interest in pulp timber stands, with engineering and other investigations carried on in the woods by industry representatives and Forest Service men. But nothing jelled.

All the while sawmills operated, largely on Sitka spruce, supplying part of the Territory's needs and working away at the relatively small portion of the Tongass National Forest that bears a high percentage of good quality spruce and not much hemlock. Thus, something like 10 percent of the forest bore the brunt of the demand for logs, while on acre after old-growth acre the pulpwood stands held their own or lost a little volume as here and there over a period of time decay or insects sapped the life from a big old veteran.

That is, until there came a market for hemlock pulp logs last year. That is, until the pulpwood stands, which none but foresters had so far loved, became a current asset for all to see because the Ward Cove pulp mill was under construction. In the space of four months, from April to July of 1953, the impact of a large demand from a local market for hemlock changed the region's logging industry. Timber sale officers were flabbergasted to hear loggers complain of logging chances that had too much spruce and not enough hemlock. Applications came in for small sales in easy-to-log areas that had been spurned time and again because of too much hemlock. At last forest managers could look at all of the forest and think about positive efforts to capture the growth potential on all of the good timber-growing land in the region.

Well, is the way clear for all the forest-producing land in southeast Alaska to go to work? Yes, it is, with two "ifs." The first—if the present nation-wide trend towards ever higher per capita consumption of paper continues. Paper industry people argue this point, some questioning if the trend will continue, others arguing eloquently that national paper consumption will go up and

(Turn to page 52)

Getting a new industry established in Alaska  
has not been an easy task. But with everybody  
working together it has finally come to pass

By NARD JONES

AS any Alaskan will tell you cheerfully, the sun does not always shine in Ketchikan, on the island called Revillagigedo. How could it, indeed, when the rainfall averages 150 inches a year?

But the sun was shining, and brightly, on July 14th, 1954. And the people of Revillagigedo, and of Prince of Wales Island to the west, consider this a good omen for the Territory's first wood pulp mill. For on that date it was formally dedicated.

On that date, at three o'clock in the afternoon, Lawson P. Turcotte, president of Ketchikan Pulp Company, walked down the shining steps of the mill's administration building—walked down between the two totem poles which flank the entrance—and handed to a color guard the American flag and the flag of Alaska.

The two banners were raised aloft, and broke out spanking clean on the crisp breeze sweeping down from the timbered hills. Then the Reverend George J. Beck of Ketchikan said a prayer, asking the blessing of

of the Service—the Hon. Frank Heintzleman, governor of the Territory of Alaska and for almost three decades Alaska's chief forester.

That July 14th was a great day for many in Alaska and many in the States, but it is doubtful indeed if the day meant quite as much to any of these as it did to Gov. Heintzleman.

For all of 30 years he had seen to it that the great forest resources of Alaska were preserved. In this time he had witnessed both the growth and the gradual decline of a minor lumber and box industry in the Territory. He had taken his post in Alaska when the box-making industry there was at its peak, manufacturing shook for wooden containers in which to ship canned salmon to the States and around the world.

And he was there when this box-making industry petered out, victim of the competition from fibreboard containers. It was not the first "boom and decline" in Alaska's immature wood-using industries. During the first world war its little Sitka spruce



## KETCHIKAN'S "CATCH"—

God on the first major industrialization of Alaska since the advent of salmon canning and mining.

It is unusual for a new wood pulp mill to be dedicated with prayer and a flag-raising ceremony. But then, everything about this first wood pulp mill in Alaska is unusual.

In the first place, it is the culmination of the dreams of many men over a very long period—and not all of those men were industrialists. As U. S. Chief Forester R. E. McArdle said just preceding the dedication, "It is the realization of a hope which the U. S. Forest Service has cherished for almost 50 years. . . ."

Chief Forester McArdle could refer to the memory of an ex-Chief Forester who was present, Col. William B. Greeley. He could refer, as well, to another distinguished ex-member

mills had turned out finely manufactured timber for the building of planes. But that was relatively short-lived, and when a world holocaust broke out again the planes were mainly of light metals.

True, there were still lumber operations in the Territory—but they were dependent upon the construction which took place within Alaska. After the peak of cannery construction, and the building boom attendant upon World War II, Alaska's lumber production and demand was bound to be nominal.

Yet during all these years of boom, of depression, and of "normalcy"—during all three phases—the U. S. Forest Service stood steadfast against pressures to ship raw logs out of the Territory. Very early it was determined that the peoples of Alaska

should benefit from the utilization of their forests.

And to this thesis Forester Heintzleman, backed by the Service, adhered. It was not always easy.

Always the professional foresters were painfully aware of the passage of time. Much of the rain-forests of Alaska were reaching a dangerous age—an age at which decay and death were imminent; or, at the least, an age at which the trees would become very vulnerable to pests.

Heintzleman and his associates realized that they had been successful in keeping the great Alaska forest reserves under lock and key. But they realized also that if the reserves were not soon unlocked they would be lost to this generation, and perhaps to two or three generations of the future.



## —THE NEW PULP MILL

So on the one hand there was a continual search for some industry, or combination of industries, which could utilize Alaska forests for the greatest good of the greatest number, and on a sustained-yield basis. On the other hand, since the middle '20s, there had been sporadic investigations of Alaska mill sites on the part of units of the pulp and paper industry.

At first—and indeed, until 1945—the idea of a non-lumber operation in Alaska centered around the growing need for newsprint. The idea of Alaska newsprint became so fixed in the minds of the public and of politicians that very few people were aware—or are yet aware, for that matter—of a very subtle but rather swift change in the conception of Alaska's place in the great wood-

using industries of North America.

A number of factors militated against the manufacture of newsprint, or any other kinds of paper, in the Territory. But meanwhile North America had developed a great wood pulp industry of its own (formerly it had depended primarily upon imports for wood pulp) and the need was increasing all the time.

Wood pulp was needed not only for the manufacture of paper and containers, but for a lengthening list of so-called "non-paper" uses—cellophane, permanently washable fast-dyed fabrics, soil-resistant rayon carpeting, heavy-duty tire cords, rayon staples and yarns, and numerous plastics.

But wood pulp for these products had to be something known as "highly purified alpha-cellulose." Could

the Sitka spruce and hemlock of Alaska produce this? It seemed possible, even probable. Not long before, it had been believed that the timber of the Pacific Northwest states was unsuitable to making pulp for high-grade paper. That theory had been blown sky-high. Washington state, for example, had nosed out Maine as the No. 1 wood pulp producing state in the nation.

All right, then, why wasn't it possible to manufacture wood pulp in Alaska and ship it to the States, or abroad, for the manufacture of paper or non-paper products? The timber and the water and the power and the labor supply were in Alaska. The necessary chemicals could be shipped north. The finished wood pulp could be barged south either to Seattle or  
(Turn to page 38)

**T**HIS is the story of a college professor who has made monkeys of those who said his ideas wouldn't work. He is T. J. Starker, of Oregon's Douglasfir region. T.J. taught forestry at the Oregon State College School of Forestry for 20 years. Now he is practicing it on his own substantial holdings that reach into six counties of western Oregon. He is on his way to achieving the dream of hundreds of timbermen today—a permanent and self-sufficient little forest empire.

How did a college professor, starting with little other than his sheepskin, do all this? The answer is so simple that one states it almost apologetically. T. J. Starker believed timber growing would pay. Everyone believes that today, but few can understand the perspective of 20 to 30 years ago. Back in the 1920's and early '30's, good Douglasfir second

at the University of Michigan for a master's degree. After Michigan, T.J. worked nine years for the U. S. Forest Service on the Whitman, Cascade, and Columbia National Forests and in the Portland regional office. Three years with the Western Pine Association followed.

We next find Starker a professor at the Oregon State College School of Forestry, then headed by the dynamic and colorful George W. Peavy, who later was President of Oregon State College, where he stayed until 1943. Besides teaching, Starker figured in a number of projects that continue to be significant in these parts. One is the Oregon State College Post Farm, initiated by him in 1927. Now known as the T. J. Starker Post Farm, it has well over 2000 posts under test, and has become an invaluable source of information regarding the various pre-

cedents seem to appreciate his making them toe the mark. Vondis Miller, now supervisor of the Umpqua National Forest, recalls that he did protest to T.J. about the severity of his grading. "You are keeping the foresters from getting scholastic recognition on the campus, as compared to other departments," Vondis, who was an older graduate student, told him. You could talk to T.J. However, T.J. recalls that he once gave A's to an entire class. They were so good, he said, that he had no other choice.

T.J.'s route from the classroom to becoming a captain of industry started with shrewd purchases of timber land. He was boosted by the turn of events. World War II's demand for accessible timber opened good markets for the large supplies of leftover old-growth and other timber on his lands. He sold timber and re-

## *From TEACHER To TIMBERMAN*

By C. R. ROSS

growth and reproduction on the finest of timber growing soil could be acquired for practically nothing other than a willingness to pay taxes on it. Owners forfeited millions of acres to Northwest counties rather than do even that. No more than 15 years ago a dollar per acre was a good price for land that might be worth 50 to 100 times as much today. Nearly everyone felt that private timber growing could not pay. Perhaps for a big corporation, but not for an individual. But T.J. disagreed. He said it would pay the individual private owner to hold his forest lands. He wasn't talking academically. He put his own savings into forest lands and advised his students to do the same.

Several took his advice. This year at the annual Oregon State College fernhopper's banquet, a former student told him, "I took your advice and bought a piece of young timber for \$12,500. Sold part of it the other day for \$62,500."

T. J. Starker has the distinction of being a member of the first Oregon State College forestry graduating class—1910. The next year T.J. was

servative methods on western woods. The oldest tests of pentachlorophenol and certain other preservatives in the Northwest are believed to be there.

Oregon State College's 181-acre Peavy Arboretum was mainly conceived by Starker. He bought the original tract and made most of its original plantings which today are a veritable dendrology laboratory for forestry students and tree lovers. Forest research for Starker is a means of getting answers that can be used. Projects he helped to initiate on the School forests of 6000 acres still turn up important answers on reforestation, heredity, types of cuttings and other problems. T.J. enjoys going back to quietly observe the effect of the passing years on these experiments.

He seems to be remembered as a thorough teacher with sound judgment. Former students are often heard to say that time only shows his early views to be the more sound. He was a strict teacher. Looking back a couple of decades, former stu-

invested the money, not overlooking the incoming flood of people and the effect of that tide on residential and business properties. From residential tracts he sold dozens of building lots. Quick to foresee other needs of a booming town, he pioneered in industrial buildings and owns a number that are rented to wholesale distributing firms. Yet the forestry field held his main preference.

All the while Starker has pursued a vigorous timber land acquisition program. He doesn't operate sawmills but is the organizer and principle investor in a large modern veneer plant, the Peak Plywood Corporation of Corvallis, scheduled for operation this fall. Starker entered that field because plywood is one of the steadiest money-makers in West Coast timbering and there has been no plant close to the Starker forests. "This new plant will enable us to use many partially culled peelers that we couldn't afford to haul elsewhere. The plant will contribute considerably to local timber utilization and will give steady jobs to about 60 men."

The Starker story is not one of



T.J. alone. After the war, he was joined by his son Bruce, a forestry graduate of Oregon State College and Yale. Bruce has taken more and more of the load. You are not likely to find a father-son team with a closer harmony of ideas than this one. If you talk with Bruce more than a few minutes you'll soon learn of the son's respect for his father's knowledge and experience.

By other foresters, too, T.J. is considered one of the wisest and most practical of all the managers of Douglasfir lands.

T.J. makes no apology for reiterating a truism. "Successful timber growing requires a long-time view—a 10-year depression is only over night to a tree."

The Starkers are always working on their roads. Many are rocked for year round use, to partially overcome the too general winter shut-

downs of logging. A good road system is the key to cheap salvage logging operations, not to mention the forest fire insurance.

The Starkers systematically comb their woods for windfalls, beetle-killed trees, and down and standing old-growth salvage material. This region is still in the phase of virgin timber removal. Down old-growth trees may be found with good material even after two or three decades, while storms, insects, root rots, and other rots yearly draft more trees for the salvage operations. Without a sharp eye for salvage, owners won't capitalize on the dynamic growth potential of Douglasfir lands. Most small owners hereabouts, and some larger ones, for one reason or another and regrettably, are not heedful of this fact. But the Starkers are salvage hawks and the salvage harvest is very substan-

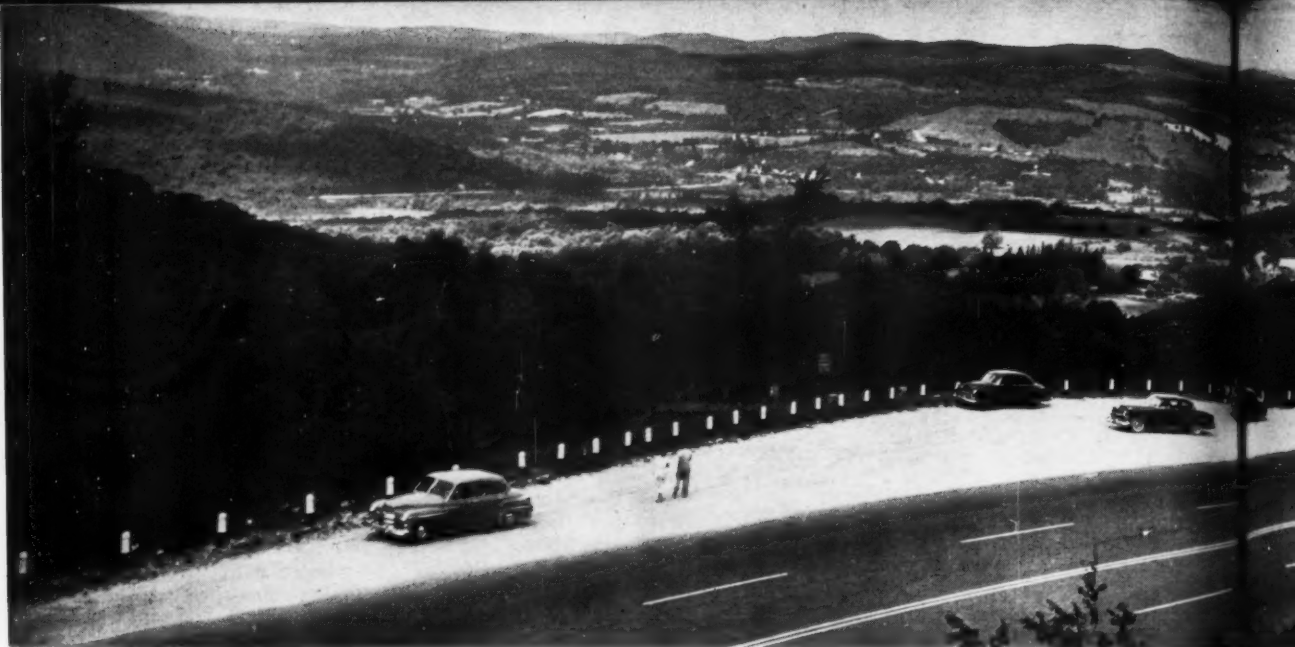
tial. In one of their woods last February, it was noted that even the windfalls of that winter had already been picked up. T.J. summarizes their cuttings as the "3-D plan." They remove trees that are Dead, Down, or Designated.

Whatever you do, says T.J., be sure you "beat the brush." Plan your cuttings so that conifer reproduction will get ahead of vigorous brush species of alder, vine maple, salal, hazel, and other undergrowth. The Starkers never forget that the first job of a forester is to get forest reproduction when it is needed. They have no blanket rule. Clear cutting in small patches has worked well. They have also found that a shelterwood system leaving from one-fourth to one-third of the stand has merit. Its partial shade seems to help Douglasfir seedlings get a start.

(Turn to page 42)



T. J. Starker, a professor of forestry at Oregon State College for 20 years, defied the critics and has justified his early faith in timber as a crop



## THRUWAY AND S

**M**ASSACHUSETTS is building a multi-million dollar throughway from Boston to the New York state line to join the Empire State's throughway to Buffalo. The Bay State's toll road is designed to eliminate the many curves and corners, the steep grades and narrow passes in the hills and to enable the hurried motorist to speed swiftly and in more safety across the Commonwealth than existing highways permit. It will cost the super-horsepowered traveler about three dollars to traverse it from end to end and maybe he will save enough time and his life and bones to make it worth the money, and help pay for the speedway.

But like some railways, it isn't going to be a scenic drive, exactly. Its purpose is to get you there first with least mileage, either from Boston to Berkshire or vice versa. But the people of the Berkshire Hills, Berkshire County, westernmost in Massachusetts, want other people to stop and turn off and play around awhile so they are promoting the

By **CLAY PERRY**

idea of a scenic Skyway that will amble gently and leisurely along the curving summits of the Taconic Range, which is approximately the boundary between New York and Massachusetts. And Berkshire County now has public domain through which to build the first section of this skyline drive, with newly acquired access from one national highway, U. S. 20, called by local people, the Albany Road from Pittsfield, the city proudly calling itself The Heart of the Berkshires.

Pittsfield State Forest, one of the largest of 15 within the county, is the public domain which fortunately embraces within its boundaries, now, about 10 miles of the Taconic's tops which undulate gracefully against the sky and form the western horizon of central Berkshire. Just to look at that skyline from the east is an inspiration, and to look at the country in all directions from these summits is to get heartfilling views into three states and of other moun-

tain ranges, the Catskills and Adirondacks of New York, the Green Mountains of Vermont and the Hoosacs of Massachusetts.

Many travelers have remarked that a road along the Taconic Range would rival the famous Skyline Drive of the Blue Ridge Mountains. Those few who have journeyed afoot along the existing Taconic Trail quite agree and recently one man has seen one addition to the State Forest secured, due to his foresight and unselfish action that will give entry directly over public land from a busy public highway which, itself, provides one of the finest views in New England. It is that of the Lebanon Valley and its bordering hills, settled years ago by the Shakers.

The man who made it possible to start the Skyway up through the State Forest and on to the north from where this lovely vista on U. S. 20 is, has risked his own money up to \$25,000 at a clip to acquire land and add it to the State Forest—and has given almost 1000 acres, outright, to the state. Some acreage he

**People in the Berkshire Hills of Massachusetts aren't against express highways. They just want motorists to take time out to enjoy the scenery**



Vista of Lebanon Valley from U. S. 20, near where proposed new Skyline Drive would start through Pittsfield State Forest (map below)

# SKYWAY

has bought and held until the state could purchase it at just what it cost him, without interest.

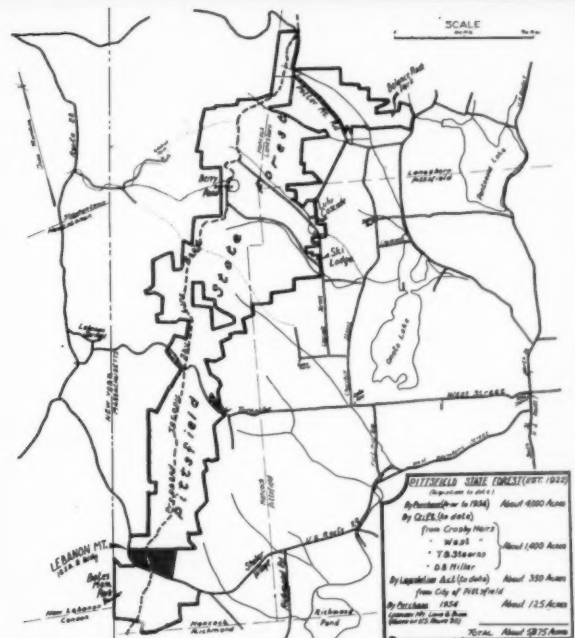
Donald B. Miller, who with his brother, Lawrence, own and publish the *Berkshire Evening Eagle* in Pittsfield, formed a corporation a few years ago called the Eagle Street Realty Corporation and used it as a sort of beneficent land buying outfit, not for profit at all but to build up Donald's pet project, the extension of the area of Pittsfield State Forest.

In March, 1954, the Eagle Street Realty Corporation turned over to the Commonwealth of Massachusetts a tract of 125 acres along the highest stretch of U. S. 20 and thus firmly attached the state forest to another tract of 250 acres across the highway that had been donated to the City of Pittsfield which in turn gave it to the State. The 125-acre tract furnishes the right of way for the first stretch of the Skyway, and to the long northern reaches of the forest.

To begin with Pittsfield State Forest was established in 1922 by direct purchase of about 1000 acres of the Taconic mountain land. It has tripled twice in area since, and plans and negotiations are under way to add 2000 to 2500 more acres to the

6000 it now holds. This will be done largely by Donald Miller buying and holding various parcels of wild, wooded land to be eventually turned over to the State. Up to 1954 Donald had given about 950 acres outright and had induced others who already owned parcels to donate or sell, at not over five dollars an acre, holdings desirable for additions to the forest.

Pittsfield State Forest in the summer of 1954 had been extended from the south with the inclusion of what is called the Bates Memorial Park of 250 acres, to a tract that had been a Pittsfield Park, in the town of Lanesboro, long world famous for its inclusion of a great, irregular shaped boulder, miraculously balanced on a very small base. Known as Balanced or Balance Rock, and weigh-



ing an estimated 365 tons or so, it was featured recently by "Believe It or Not Ripley" as one of the wonders of the world. It touched the state forest only at a corner, when it was turned over to the state by the city, but now Mr. Miller is arranging to purchase intervening land to close the gap. His father, the late Kelton B. Miller, had raised the money to buy Balance Rock Park for the city, in the first place, but it proved to be too remote and expensive to maintain as city property.

It will be seen that Donald B. Miller has somewhat inherited his land buying hobby, if it can be called such. His father gave most of another large city park and some pieces of smaller ones before he died. He also raised the money to purchase a 10,000-acre mountain estate from the heirs of the late William Whitney which is now October Mountain State Forest, a wilderness wonderland which Harry Payne Whitney occupied on a long honeymoon. He pushed through the city government the purchase of other land for a watershed and got trees planted thereon and periodically gave away young maple shade trees for planting in the city, which is now losing many trees from the Dutch elm disease.

Mountain, that was the Mt. Zion of the Shakers and still belongs to the North family of Hancock, Massachusetts. This he plans to hold for state acquisition. With this land, the highway will be protected from exploitation for undesirable commercial uses, and especially to shut off a threatened racetrack development at the foot of the mountain.

There is a trail which few have trod since the CCC was disbanded and their camp on West Mountain in the Taconic Range abandoned. Actually this trail starts into the Taconics from the Shaker settlement in Canaan, New York, climbs up to a bald summit known as Perry's Peak, passes through the Bates Memorial Park on Mt. Lebanon, and then on all along the summits for fifteen miles or more, northerly. The Taconic Skyway would follow this trail route closely, with its moderate ups and downs, rising not more than 500 feet in its whole extent, a crow flight distance of six or seven miles entirely within the State Forest, from Perry's Peak to Potter Mountain, the most northerly limit of the State Forest.

There would be three existing roads giving access and exit, one of them a CCC built climbs from the

nic area, forming a loop through the beauty of green growth, beside lovely waterfalls and cascades, a convenient side trip from the lofty Skyway whose highest altitude would be 2450 feet, overlooking the Housatonic Valley that is an average of 1000 feet above sea level.

The woods are thin, mostly, having been many times cut off, but there are some sizable white pines, hemlocks, many white birches, a mingling of oaks, elms, maples, beech and other deciduous trees. All along the route, acres of low-bush blueberries, patches of red raspberries, blackberries, wild apple trees where old farms were once, and the shad bush flares its first white blooms in spring; shy dogwood flowers its waxen blossoms here and there in the shade. Struggling chestnut sprouts from old stumps and is blighted down again and again by the mysterious disease that killed all these useful trees 30 or 40 years ago.

Of Pittsfield State Forest and its proposed Skyway, Raymond J. Kenney, director of Forests and Parks of Massachusetts, wrote to Donald B. Miller in May:

*"I have great confidence that this forest will soon be the real show place of Massachusetts."*

Pontoosuc Lake in Pittsfield State Forest, where Skyline Drive would run



Donald B. Miller's office, today, in the Eagle building in the center of Pittsfield, is crowded with files, maps in a huge case, and other documents having to do with the affairs of the Eagle Street Realty Corporation and his occupation as business manager of the newspaper of which his brother, Lawrence, is editor. Donald's most recent project in this benevolent land grabbing is to add about 1500 acres more to Pittsfield State Forest, embracing two more mountains and more of Lebanon

Pittsfield recreation area of the forest to Berry Pond, highest natural body of water in Massachusetts, lying amid acres of blazing June azaleas which thrive here as nowhere else and attract thousands in season. A second road crosses Potter Mountain from Pittsfield to Hancock and is negotiable by cars all summer and fall, could and probably would be made a winter road when the Skyway is built. At Berry Pond, another rude road descends along Parker Brook back to the pic-

But even earlier, a man who was among the first to visualize the Skyway, and who like Kelton B. Miller was wealthy and was mayor of Pittsfield wrote letters urging it.

The late Allen H. Bagg in 1937 suggested "A mountain highway around our western range would bring to this region international fame and interest . . . a highway from Mt. Greylock to Balance Rock Park, Berry Pond and Lebanon Mountain. . ."

(Turn to page 55)





## Did You Ever Pet a Coon?

By **HARRIETT WEAVER**

**D**ID YOU ever have a pet coon—one, I mean, who was with you because he wanted to be, and not because you had him caged or chained so that he couldn't get away? If you have, you understand how those soft, baby hands of theirs can take hold of the heartstrings, and never let go. If you haven't, I hope some little fellow picks you out to be his family some day for it's an experience that would be a pity to miss.

However, if you are of the ilk that traps or shoots, feel of your next victim's hands, and just figure that they'd still be warm and sensitive, and forever into things if it weren't for you. You could have done your hunting with a camera.

I was on the Ranger Staff of Big Basin Redwoods State Park in California when Felix came to me. Many, many coons had come and

gone from my park residence, night after night, trooping in and out of my kitchen, begging or filching everything they could. But Felix became mine because he was orphaned and hungry and very tiny. Up until that time I had been known, with some individuality, as the Ranger Lady. Afterwards I was merely the Coon's Mama.

This was perfectly all right with me except that Felix took more time than my job. Big Basin sees a quarter of a million people pass through

every summer, and I think every one of them found out about Felix and came to see him. He lapped up all the attention but it was bad for his ego. When he was brought to me in the beginning he was shy and fearful for a few days, and terribly dependent on my love and the bottle of warm milk he took every two hours. Then, as he began to get that Feeling of Security he took over the house, and very nearly the park. It didn't take him long to find out that aside from the giant trees he was the big attraction.

(Turn to page 50)

Once some mischievous little orphan adopts you  
as his family you may as well resign yourself to  
a life of surprises. But don't think it isn't fun

# Will Forest Fire

By H. B. SHEPARD

“THREE-FOURTHS of all commercial forest land in the country is in private ownership. . . . Here is the greatest field in which to increase forest production in the United States. This calls for a much more extensive program of education and on-the-ground assistance to private owners.

“Forest and forest land taxation, income tax laws and forest credit and insurance must all be looked at realistically in terms of how best to promote intensified forestry practices on the ground. . . . Forest fire loss experience is favorable to application of the insurance principle in a large part of the country. Such application is needed as a practical business aid to full production. We recommend . . . that forest owners consider formation of a mutual forest fire insurance company or companies unless established fire insurance organizations act without undue delay to extend their operations to include forest properties at rates consistent with the risks involved.”

The paragraphs above are quoted from the “A Program for American Forestry” which recently was overwhelmingly approved by a referendum vote of the members of The American Forestry Association. They indicate AFA’s awareness of the need for more assistance, technical and economic, to private owners as a means of improving the prospects that private forestry enterprise will be an increasingly successful business undertaking. The purpose of this article is to take the suggested realistic look at forest fire insurance in an effort to determine, first, its feasibility and, second, if it appears feasible, methods by which it might be made generally available to private forest property owners and timber growers. The American Forestry Association recognizes an existing lack of adequate forest fire insurance

facilities. It also appears to take it for granted that such insurance could confer benefits on the timber growers, benefits that could be expected to promote intensified forestry practices on private properties.

*Present Availability*—How do the fire insurance facilities for forestry enterprise compare with those for other businesses now? How sound is the assumption that the availability of forest fire insurance would be a benefit to timber growers? Would they buy the insurance and, if so, could it be provided on a practical and profitable business basis? Answers to these questions are fundamental to consideration of the advisability of attempting to make forest insurance an active phase of the national forestry program.

Although detailed statistics are lacking it is possible to answer the first question with practical accuracy on the basis of general knowledge. The amount of forest fire insurance in effect in the United States is negligible in comparison with the values at stake. Any forest property owner can get his own answer to why this is true by making inquiries in the insurance market as doubtless some of the readers of this article have done. Although forest fire insurance has been a subject of discussion and study for more than 30 years no established insurance company has tried to develop the business as more than what they call an “accommodation line.” A few fire insurance companies offer limited coverage in the northeastern states and there have been instances of forest property insurance elsewhere in a

few special cases. The idea of general application of the insurance principle to forest fire losses has nevertheless not yet really caught on in North America. We have to go to Europe, particularly to the Scandinavian countries, to see forest fire insurance in large-scale, successful operation.

This scarcity of forest fire insurance exists in spite of a great popularity of fire insurance among the American people. Statistical proof of the exact extent to which insurance is carried on buildings and their contents—all kinds of buildings from dwelling houses to manufacturing plants—is lacking but the evidence indicates that it is large. A friend of the writer who has had long experience with fires and fire losses countrywide estimates that 90 percent or more of the fires causing damage to buildings or their contents result in the payment of at least some insurance indemnity.

Such widespread use of fire insurance can only mean that property owners and business people are convinced that fire insurance brings them benefits commensurate with what it costs. It is reasonable to believe that forest property owners and timber growers are at least equally favorably disposed toward relief from the risk of loss from fire and that they would buy the insurance if they could get it at a favorable cost-benefit ratio.

*Value to Timber Growers*—The question whether timber growers would gain benefits from insurance against fire on their properties is practically self-answering. There is

**Forest fire insurance is one of the paramount goals  
in AFA’s new Program for American Forestry. Here is  
an expert’s evaluation of how it could be initiated**

# Insurance Work?

no apparent difference in this respect between forestry enterprise and any other kind of enterprise. The best way to learn about the benefits of fire insurance is to consult an insurance agent or to read a fire insurance company's advertisement. The popularity of fire insurance rests on the realization that no-one can tell when he may suffer a severe loss. No forest property owner can be sure that his growing stock will not, sooner or later, be severely damaged by fire. Forest fire protection, like other activities, is affected by the law of diminishing returns. Fire protection can reduce the risk but it can never completely eliminate it.

Insurance lacks the ability to prevent loss from fire but it does possess the ability to ameliorate the ensuing damage to the owner's bank account. He can still feel, after he has had a fire, that forestry enterprise is

a practical business undertaking. Insurance substitutes a fixed and predictable annual cost for an uncertain risk. It improves the property owner's credit standing. It lessens the chance that his assets will be impaired. When forest properties are insured against fire losses forestry enterprise will be able to offer other enterprises stronger competition for capital funds. Investment in the ownership and development of forest properties will look like a better business proposition.

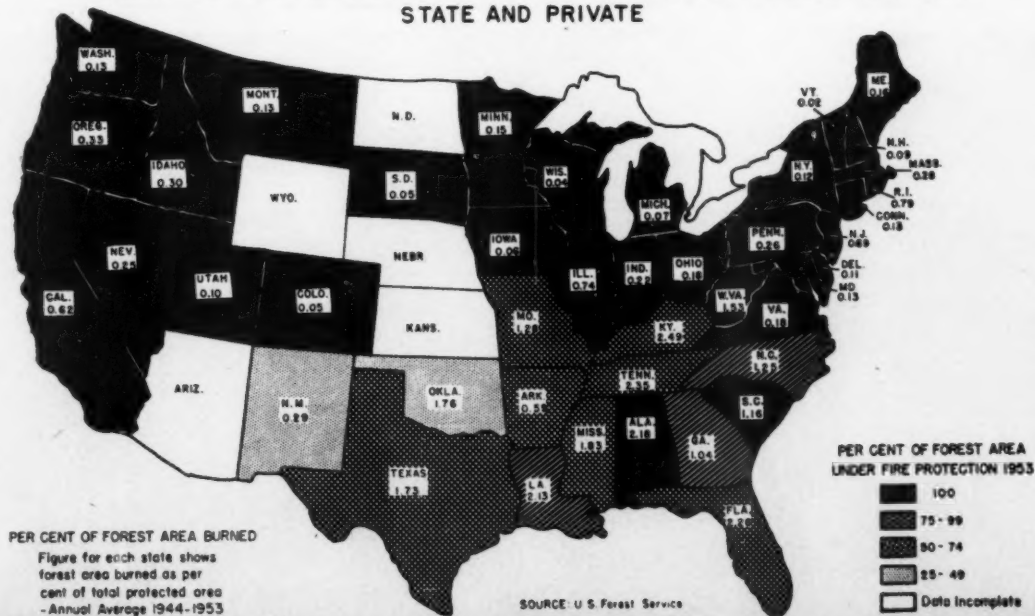
The best way to find out whether timber growers would buy forest fire insurance is to offer it to them. Before attempting this, though, it will be advisable to determine something about the terms on which it could be offered. The terms will have to be attractive to the forest property owners. They will also have to provide the insurance carriers

with reasonable prospects of successful operation. If the terms make forest fire insurance look like a bargain to the timber growers they will be more likely to buy it. The nearer they come to making forest insurance look like a "gold mine" to the insurance companies the more chance there will be that they will go into the business.

*Forest Fire Damage Record*—So far, forest fire insurance has not looked like a bargain to the timber growers nor like a gold mine to the insurance companies. What are the chances that there is a middle ground on which both can meet with reasonable mutual feasibility? The best way to answer this question is to look at the forest fire record to see whether the year-to-year loss and damage from forest fires makes application of the insurance principle

(Turn to page 47)

## FOREST LANDS UNDER FIRE PROTECTION AND AREAS BURNED STATE AND PRIVATE



# Western Europe Welcomes In

By LEO A. ISAAC

**A**FTER a lifetime of study in the virgin forests of America, I felt a strange sensation, indeed, when I walked into dense European forests of spruce and fir (frequently Douglasfir) and saw mature trees growing in planted rows. The sensation was heightened by land boundary markers of stone that dated back 600 to 1000 years. Automatically I visualized knights in armor, on their charges riding through the dark aisles of trees. It made me realize that perhaps a dozen forest crops had been harvested by man from this land.

It was my privilege to visit these forests and to attend, as a consultant on tree seed, the European Congress on Productivity in Forestry and Timber Industries, held at Stuttgart, Germany, in September 1953. For three weeks after the Congress, I was the guest of German foresters, and had an opportunity to see a number of forest areas, particularly those where Northwest tree species were being introduced. The next five

weeks were spent visiting forests of Scandinavian countries, southern European countries, and the British Isles. I was shown studies in regeneration, stand improvement, foreign species introduction, and native species improvement—especially selection of plus trees and establishment of seed orchards. Everywhere American species were making a good showing if the right seed had been selected.

Forests of western Europe include both broadleaf and coniferous trees grown in pure stands or in all forms of mixture. They are perhaps three-fourths conifer and one-fourth broadleaf. Important broadleaves are beech, birch, oak, maple, and ash, roughly in that order of significance. Tulip poplar and red oak are the two American broadleaves that are most used. In many cases broadleaf forests are being replaced by conifers because conifers produce more volume per acre.

Important European conifers are Norway spruce, Scotch pine, Euro-

pean larch, and European white fir. Introduced American species are Douglasfir, grand fir, noble fir, Sitka spruce, western hemlock, and cedars—with Douglasfir leading the invasion. Eastern white pine, once widely used, is losing favor because of white pine blister rust.

Western European foresters pointed out that many of their present conifers were brought in from eastern Europe hundreds of years ago. They are, therefore, not truly native to the region, and apparently are not always the best trees for their sites. They have learned by trial that one promising means for increasing production is through the introduction of American species, notably Douglasfir. On many sites Douglasfir produces more volume per acre than their own trees if seed of exactly the right climatic strain is obtained. It also produces timber of equal or better quality.

Douglasfir was first brought to England by David Douglas, the Scotch botanist, in 1827. I saw siz-

**Though Douglasfir leads the European invasion, other American species such as grand fir, noble fir, Sitka spruce, western hemlock and cedars also have been introduced**





# s Invasion of Douglasfir

able stands, both in England and western Europe, that were more than 80 years old. Other species were brought over shortly thereafter and organized tests of different species and strains were started as early as 1908. Results with American conifers vary all the way from excellent development to complete failure. A little-known fact that causes the variation is this—American conifers are far more sensitive to environmental change than is generally recognized. When moved to a climate far different from that of their place of origin, they do not make satisfactory growth and are highly subject to insect attack and disease. Atmospheric moisture appears to be as important as average and extreme temperatures in matching environment of seed source with planting site.

Douglasfir seed collected at different elevations from sea level to 5000 feet in western Washington showed a wide range of results in Bavarian plantations. The best suited strain was one-third taller and twice as large in diameter as the poorest. In other plantations in western Germany Douglasfir seed from western Washington produced a magnificent forest, while seed from the east of the Cascade Mountains resulted in a sickly, worthless stand. One of the reasons I was called to Europe last year was to help solve these problems.

In the forests of Europe, wood operations of some sort—planting, pruning, thinning, fuel gathering, or logging—seem to be going on almost continuously. There is very little mechanization and logging by hand or with cattle and horse teams is a common sight.

Most of the seedlings produced are European species but I found the use of American species increasing everywhere. American red oak and tulip poplar are the chief competitors of European hardwoods. Douglasfir is the most sought-after conifer. Of all American conifers, grand fir



Here and there in Western Europe limited forest areas suffered severe damage as a result of bombings during World War II

appears to thrive best in most localities, but the wood does not meet with favor. Sitka spruce and western hemlock do well and are extensively used in the strictly maritime climates.

Nursery stock is usually grown two years in the seedbed and two years in the transplant bed. As a rule it is larger and more sturdy than Douglasfir seedlings produced in northwestern United States.

At Halstenbek, Germany, I visited a nursery (Pein and Pein) that produces 300 million trees a year, and the owner contracts with other growers for an additional 300 million. The total production of this one firm about equals the entire annual forest planting program of the United States. There are many additional smaller nurseries. It is difficult to understand how such large numbers

of forest trees can be grown and outplanted in this impoverished and war-torn country.

Very little machinery is used in seedbed preparation and care. Most nursery work and some field planting are done by women, particularly in the southern countries. In Germany, these workers are called "Kulture Damen" (culture women).

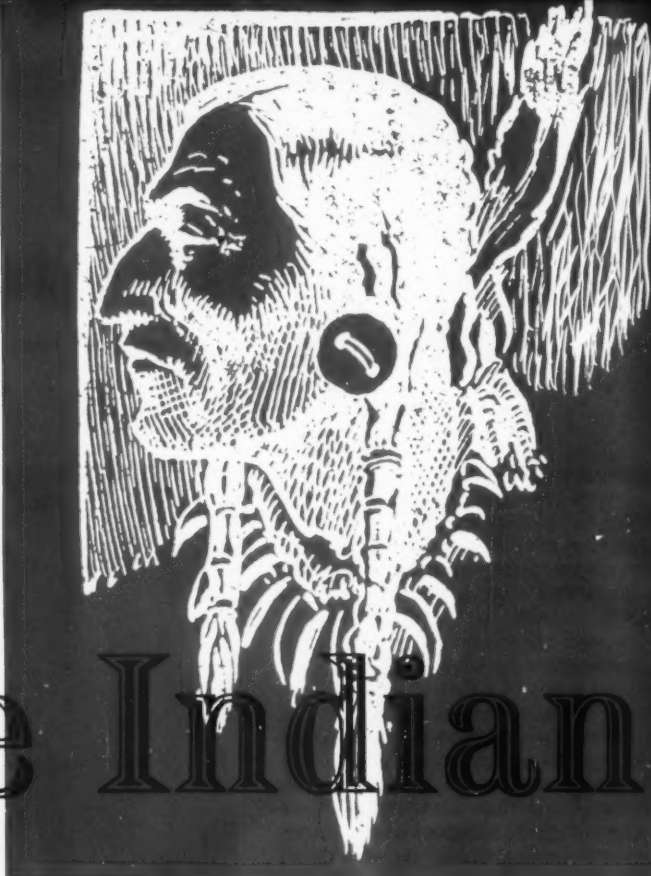
When a tree is planted on a forest area in the Douglasfir region, the operation is considered practically complete. There is usually no land preparation, and except for fire protection no further care is given until time for the first cut. But in Europe field planting would be considered only the first half of the job. Usually there is some advance land preparation. For several years after planting

(Turn to page 52)

The red man, like his white brother, was not always a wise user of the forest. He, too, was guilty of needless devastation

# The Indian

By ANTHONY NETBOY



IT IS generally assumed that intensive use of our forests—and the devastation which often accompanied it—was the particular invention of the white man who colonized North America. But this is not so.

Before the white man came to the New World the land had belonged for thousands of years to the red man, immigrant from Asia. At first, all Indians were nomads, but eventually some tribes learned to practice gardening as a sideline, and, while depending mainly on hunting and fishing for food, became rather sedentary. They tamed some of the wild plants whose seeds they ate or ground into meal and fashioned crude pottery vessels for storing food. Eventually, some of the gardeners became full-fledged farmers—and it is at this point that the real history of forest use (and misuse) in America begins.

Except for the prairie-plains region, the arid southwest, and the areas above timberline, America in the days of Columbus was virtually an unbroken forest. The forest stretched from Maine to Florida and westward from the Atlantic Coast

into Illinois. "There," as Richard Van Dersal says, "it was divided by a spearhead of prairie into two massive arms, one of which extended north and west to the edge of North Dakota, the other south and west [across Missouri, Arkansas and Oklahoma] to the center of Texas. It covered all the great Appalachian mountain system, and encompassed the Great Lakes. Along the Gulf of Mexico it reached almost to the western boundary of Texas. And from its interior side, next the prairie, it sent a thousand narrow strips fingering still further westward along the streams and rivers of the central grassland."

Beyond the grassland was the Rocky Mountain barrier, forming a "continental divide," where the forest reappeared, mainly at the higher elevations.

West of the Rockies stretched an arid, virtually treeless land, including immense and trackless deserts in the southwest. But the Sierra Nevada, the Cascades, and Pacific Coastal ranges proliferated with tree growth. In northern California and the Pacific Northwest the forests were the most luxuriant in the world.

Until the arrival of the Indians, the primeval forest, with its bountiful animal life, had lain practically undisturbed. Seedlings grew into skinny saplings, and saplings into sturdy veterans that lived out their full span of years until, like men or beasts, the infirmities of age weakened hearts and limbs, and a severe windstorm or occasional fire set by lightning sent them crashing to the ground. Underneath the tall trees the forest floor was garlanded with a multitude of shrubs, vines and wild flowers, matted with thick accumulations of litter and humus, and especially with the tangled and rotting carcasses of fallen trees.

When the New World came within the ken of Europeans, the inhabitants of what is now the United States probably numbered no more than 850,000 persons. According to the late Clark Wissler, "the aboriginal population density averaged about one Indian to every three square miles. . . . The densest population areas were California and a narrow belt along the Pacific Coast in Washington and Oregon. The two small localities with the maximum density were in the vicinity of San Francisco and the Pueblo vil-

lages centering in Arizona and New Mexico." The Indian population in southeastern Virginia and the Atlantic coastal belt probably approached the density of California, while less concentrated groups were found in southern New England, New Jersey, eastern Pennsylvania, Delaware and parts of Maryland, and the southern states outside of Florida.

The area embracing New England, New York, Pennsylvania and New Jersey harbored about 55,000 Indians in the early 16th century; the seaboard from Maryland to Georgia, 52,000; and the Canadian Maritime provinces, 25,000 to 50,000. When the Pilgrims landed at Plymouth, there were about 25,000 red

not worry about the fact that their paleolithic agriculture brought meager and decreasing returns. After settling in a locality for several years, they packed up their scanty belongings and moved to a new part of the forest. Then began the slow, laborious work of chopping out new clearings and gaining access not only to virgin soil but to new supplies of game, nuts, berries, herbs and roots. The abandoned fields gradually reverted to woodland and only well-trodden foot trails, and sometimes blackened stumps and stone artifacts, remained to identify the vacated settlements.

A deeper impact than the clearings was made upon the forest by the frequent use of fire. As woodland

The Pilgrims, for instance, discovered as soon as they touched land a number of uninhabited village sites and fields but recently planted to corn. This situation may have been decisive in locating their settlement at Plymouth after much exploration around Cape Cod. Abundant timber could be found, however, only at some distance from the shore.

Similar scenes were visible in other parts of New England. Many of the early Massachusetts Bay records comment on the presence of clearings, and the desolation of the surrounding woods. "Large and useful trees," says one account, could not be found "on the upland ground, but must be sought on the lower grounds, where the woods are

# and the Forest

men in New England alone, concentrated near the coast.

Within the confines of the great forest which blanketed eastern North America, the aborigines developed a remarkable type of agriculture, considering that they had no iron tools. Using only stone adzes, they mastered (and taught the white man) the art of girdling and killing the huge trees as a preliminary step in clearing the ground for agriculture. Thus the trees died gradually and as the sunlight penetrated the withered branches seeds were planted. Previously the ground had been fertilized with fish and seaweed.

The common crops of the eastern woodland tribes were maize (Indian corn), pumpkins, squash and beans. In Virginia the Indians also cultivated tobacco, destined to become an invaluable crop for the colonists. The stumps of the larger trees, however, were always a problem, and were generally left to rot on the ground. Within the clearing, which usually was close to a stream or spring, crude huts or teepees were erected. Each was surrounded by a plot of cleared ground, a hundred or two hundred feet square.

Since land was plentiful and fish and game abundant, the Indians did

denizens, the Indians knew that deer, elk, buffalo and other browsing animals converge upon grassy glades or localities abounding with tender leaves or shoots, and that both grass and undergrowth return in profusion after fire has swept the ground. Hence early in their settled history they developed the practice of burning the woods in spring and autumn to freshen up the forage, a practice that is still fairly common, especially in the South. The Indians also set fire to the woods as a means of driving big game into enclosures, where they were easily felled by skillful hunters with deadly stone arrows. And sometimes they ignited the timber near their villages to create "firebreaks" as protection against devastating conflagrations set by lightning.

On the whole, the Indians did not excessively abuse the land, nor deplete the wildlife, even after centuries of habitation in any region. They utilized the forest to fashion whatever articles they needed — canoes, snowshoes, birchbark, barrels and other objects, as well as material for their dwellings.

Never did the Indians utilize the forest as a source of food upon the form of the Pilgrims could not

wet when the country is fired, by reason of the snow water that remains there for a time." Cedars, which the Indians fashioned into excellent canoes, were reported as extinct on the higher lands. Along the banks of the Taunton River in Massachusetts the early colonists saw ghost villages and clearings grown up to brush and trees.

In parts of the Middle Atlantic region and Virginia the forest likewise had been cleared and burned in places. Hu Maxwell, who studied the records of land use in aboriginal Virginia, concluded that there were probably 30 to 40 acres of treeless land per capita of Indian population at the beginning of white settlement. Denudation on such a scale would be catastrophic today, but it was hardly noticeable at a time when the population averaged three persons to the square mile.

No matter where he lived, the Indian left telltale marks. Hunters felled trees, trampled or burned the brush, starting fires that sometimes spread over relatively large areas. Farmers, or more accurately gardeners, girdled the trees and brought daylight into the forest. Warriors occasionally used fires, an absolute weapon, to stop an enemy.

(Turn to page 63)





Robert N. Hoskins, second from left, presents award to Dr. Olaus J. Murie, right, at special ceremonies in Denver where Dr. Murie is hospitalized. Watching presentation are, left to right, Arthur Nelson, Assistant Regional U. S. Forester; Fred Johnson, president, Colorado Forestry and Horticulture Association; and Mrs. Murie

## For Distinguished Service

Presentation of AFA's 1954 Conservation Awards to five outstanding citizens is a highlight of the annual meeting in Portland, Oregon

**H**IGHLIGHT of the 1954 Distinguished Service Awards Program of The American Forestry Association occurred last month at Denver's National Jewish Hospital where Awards Chairman Robert N. Hoskins presented this year's conservation award in the field of General Service to Dr. Olaus Johan Murie, of Moose, Wyoming, president of the Wilderness Society, and one of the nation's outstanding biologists.

When Dr. Murie, a patient at the hospital, regretfully reported that he would be unable to attend the 79th Annual Meeting of AFA in Portland, Oregon, Mr. Hoskins traveled to Denver to make the award to Dr. Murie in person. As reported to a national television audience by Station KOA TV, Denver, those present included Mrs. Murie, Arthur Nelson,

assistant regional forester of the U.S. Forest Service; Fred Johnson, president of the Colorado Forestry and Horticulture Association; and Leonard S. Smith, of the hospital staff.

Dr. Murie, who was nominated by 70 leaders in all phases of resources activity ranging from Supreme Court justices to writers and educators, was

Palmer Hoyt, editor and publisher of the *Denver Post*, was an award winner



described by Mr. Hoskins as "one of the most distinguished biologists since Aldo Leopold—a man who offers solid assurance that all is well in the world of winding wilderness trails and limpid streams" and the man "you would most like to take home to introduce to your children." The nation's outstanding authority on elk, Dr. Murie has long been active in the work of The American Forestry Association, Izaak Walton League, the Quetico-Superior committee and numerous other conservation groups.

Dr. Murie was hospitalized shortly after completing the widely-publicized hike down the C & O Canal towpath from Cumberland to Washington early this year that was led by Supreme Court Justice William O. Douglas. He is now receiving



treatment for tuberculosis-meningitis. Mr. Smith, of the hospital staff, said, "I know this award will do as much to restore Dr. Murie to full health as any of the wonder drugs."

Another awards recipient who was unable to make the trip to Portland was Palmer Hoyt, editor and publisher of the *Denver Post* and former publisher of the *Portland Oregonian*, who was lauded by the awards committee for "placing himself four-square behind the public's best interest in blocking every raiding party that has ever presumed to pre-empt public lands for its own exclusive use and at the expense of the public."

Mr. Hoyt was particularly cited for his forceful leadership in behalf of multiple use management on public lands and for his support of a program to control the spruce bark beetle epidemic which threatened to wipe out Englemann spruce in the Rocky Mountains. The citation also added that Mr. Hoyt and his newspaper have been actively identified with improvements of farms and ranches through conservation practices and with a move to correct antiquated mining laws to overcome abuses in the form of illegitimate claims.

In an address delivered at Portland on September 6, Mr. Hoskins conferred awards on three more distinguished leaders in conservation. These were: Dr. Samuel Trask Dana, of Ann Arbor, Michigan; Frederick Paul Keen, entomologist for the California Experiment Station of the Forest Service; and Reuben Buck Robertson, chairman of the board of the Champion Paper and Fibre Company, of Flat Rock, North Carolina.

Dr. Dana, founder of the University of Michigan's School of Natural Resources, was called "the great balance wheel in a straining, hectic period—the shining light of the true professional man in the first 50 years of forestry." Dean Dana's citation continued, "Temperate, cool and exact, this educator is the personification of the wise counsellor and the man in natural resources who perhaps above all others possesses that rare quality of true statesmanship." Pointing to the fact that he pioneered in blazing a new trail in forestry education, Dr. Dana was lauded for teaching that "the word forestry is much broader than the ordinary concept." In establishing the School of Natural Resources at Michigan he paved the way for multiple use forestry as practiced on na-

tional forests and laid the foundation for today's wide employment of professional foresters in private forestry, the citation declared.

Mr. Keen, the recipient of this year's award to public servants, was lauded by the AFA for "accomplishments in the field of forest entomology that have won him the plaudits of the whole forestry profession." His citation continued, "Working away from the limelight, this able man quietly accepted a grim challenge 30 years ago when deadly hordes of beetles killed 15 million feet of pine timber in California and Oregon. It was clear to him that man's efforts were too puny to stop these juggernauts of destruction once their terrible force was unleashed. He reasoned that prevention of such epidemics was the better way, and we submit there is an element of the heroic in this patient man's dedicated search for facts that ultimately drew back the curtain of mystery behind which the vicious *Dendroctonus* ravaged the forest.

in the field of business and industry, was cited as one of the pioneer industrialists "whose long, patient, unrelenting interest and participation in better forest management have helped to lay the foundation upon which industrial forestry has attained its present stature. Years ago, he not only had the mind, but also the will, to press for improved forestry practices and he has fathered these practices not only in North Carolina but throughout the South and in fact the whole country through many long years. While not trained as a forester, he was quick to realize that the American paper and pulp industry was a dynamic, expanding young giant and that its expansion demanded a perpetual and dependable supply of pulpwood. Accordingly, he first developed an outstanding forest conservation program on his company's lands and by precept and example fostered good forestry practices on the lands of others." The citation further lauded Mr. Robertson as an outstanding ex-

Award winners Frederick Paul Keen and Samuel Trask Dana chat with Awards Committee Chairman Hoskins as Reuben Buck Robertson, another winner, looks on



This scientist's accomplishments, often carried on with meagre budgets that were mere pittance, are well known to all practitioners of good forestry."

Mr. Robertson, who received the AFA Distinguished Service Award

ample of "enlightened leadership" in the field of industry and as a man who firmly believes "that true conservation must be accomplished more by the voluntary cooperation of individuals rather than by compulsions of government."



Photos by Dave Gordon

AFA members heard how beautiful Ponderosa pine stands like this are threatened by dams at Libby Montana, when they toured J. Neils Lumber Company holdings as guests of George and Mrs. Neils

**M**EMBERS of The American Forestry Association from 31 states last month took to the woods for three days in Oregon and Washington. The occasion, AFA's 79th Annual Meeting, in Portland, Oregon, was the first Northwest meeting in Association history. Unquestionably, these tours represented the most comprehensive examination of forestry on the ground ever made by AFA members. Prior to the trips the visitors had been briefed for one day on patterns of Northwest management—federal, state and private—by a battery of representative experts at a one-day business session. Good as these talks were—and they were tops—it was the on-the-ground observation that scored heaviest with this predominantly lay audience. Their verdict at the end

of their first Northwest visit: "The forestry future of the Pacific Northwest is in good hands."

The fact that 62 industrial firms banded together to raise \$10,000 to introduce the visitors to Northwest forestry was a very solid indication of their hospitable intent. The co-operation of the state and federal agencies and the forestry schools was just as pronounced, with representatives of all these groups present on each day. As General Chairman E. P. Stamm said on the opening day, "We feel we have accomplished some worthwhile things—made a good start. We have lots to do yet, of course, but we think we are on our way."

If the visitors had entertained any doubts as to the validity of Mr. Stamm's opening statement, three

days of field trips quickly dispelled them. From the first, these trips went off with clockwork precision—gave substance and point to another opening day statement by J. P. Weyerhaeuser, Jr., president of the Weyerhaeuser Timber Company. Said Mr. Weyerhaeuser "tree farming, combined with whole-crop utilization and efficient forest-product plants, is providing the products you need and use today and will continue to provide them for your children and their children . . . under such a program we can literally eat our cake and have it too for under wise management trees will continue to replace themselves as rapidly as we use them".

In addition to planning for today's wood needs, however, Mr. Weyerhaeuser stressed that tree farm-

**'Cooperation' in Northwest resources work was theme of Gov. Paul Patterson, of Oregon, at Portland banquet of AFA**



**AFA's forestry tour of the Northwest was the most intensive in history.  
Verdict of members? "Forestry's future in this region is in good hands"**

# Northwest Rediscovered

ing also carries with it obligations to future generations as well as this one. To determine how the industry is shaping up along this line, the speaker revealed that his firm last year retained the Stanford Research Institute to study the problem and make a projection of forest products demand through 1975. This study has now been completed and will be released shortly. "Without prematurely releasing the substance of that report, I can tell you the future for forest products is encouraging", Mr. Weyerhaeuser said. "Some of the newer products are bound to boom. Yes, there will continue to be wood in your future." (An article on the Stanford Report will be published in the November issue of AMERICAN FORESTS).

In brief, Mr. Weyerhaeuser urged his audience to stop listening to the cries of gloomy prophets who predict "timber famine". A man who heads a firm that is probably the greatest user of wood in the world and whose very future depends on a continuing supply, Mr. Weyerhaeuser said that he believed that "the turning point has now been reached. Although the last national forest survey (now 10 years old) indicated total forest

growth and drain slightly underbalanced, I believe the figures currently being assembled will show a growth surplus."

In the keynote address on the opening day, Charles A. Sprague, Salem publisher and former governor of Oregon, recalled how times had changed since Mr. Ballinger was given a triumphal banquet at Grays Harbor on his return after resigning

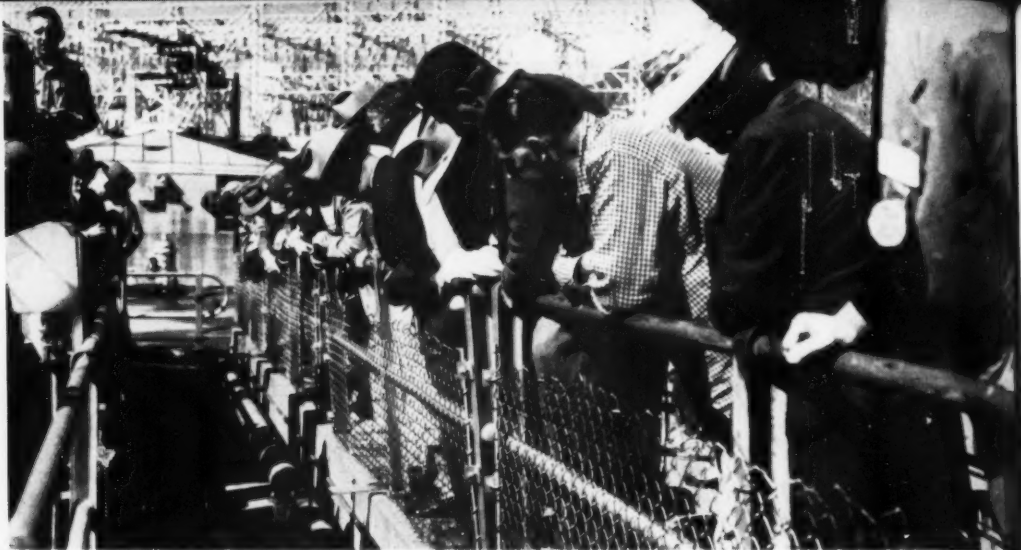
as Secretary of Interior following his controversy with Gifford Pinchot.

"In the mind of the pioneer lumberman he (Ballinger) was the defender of the good old American principle of freedom to exploit resources in the name of development," Mr. Sprague said. "But times have changed. The one-time foes of national forests have passed on or for the most part become reconciled

**Six bus loads of AFA members touring Clatsop Tree Farm pull up to watch grazing elk herd, view results of reseedling by helicopters**







Bonneville Dam on the Columbia cost \$86,519,000. Visiting members were especially intrigued by the salmon ladder and the fish counting station



President Don Johnston takes a ride on the ski lift, Whitefish, Montana



Eagle Creek Forest Camp in Mt. Hood Forest is operated on a charge basis by Forest Service. Maintenance needs were reported acute in these areas.

A flying conservationist, Mrs. C. Henry Graham came from Seattle by motorcycle



Neils Lumber Company foresters describe insect control work to visiting delegates







Display of wooden plates by R. J. Pontzer, St. Mary's, Penna., was a prize exhibit



Tree growers—(l. to r.) Oregon State Forester George Spaur, Prof. Emanuel Fritz, E. C. Rettig, Potlatch Forests, and Roy F. Morse



Members described tour of the Neils Company as one of the most instructive on the trip

Board members (l. to r.) Johnston, Stamm, White, Nelson, (Back row) Fontanna, Demmon, Browning



Touring AFA members from the East slept here. Glacier Park Hotel in Glacier Park

J. P. Weyerhaeuser, Jr., stressed the future in address to visitors from the East



to the new order of things. True, there are still points of controversy between private loggers and those who administer the publicly-owned forests; but of late years more publicity has gone to the contention between graziers and the Forest Service over grazing privileges.

"The West quite universally recognizes the need for public ownership of the watershed regions and for federal retention of its forest holdings," Mr. Sprague said. "At the same time the West does not want to see any national expansion of federal ownership which in many states runs to over 50 percent of the acreage. In the last half century western-

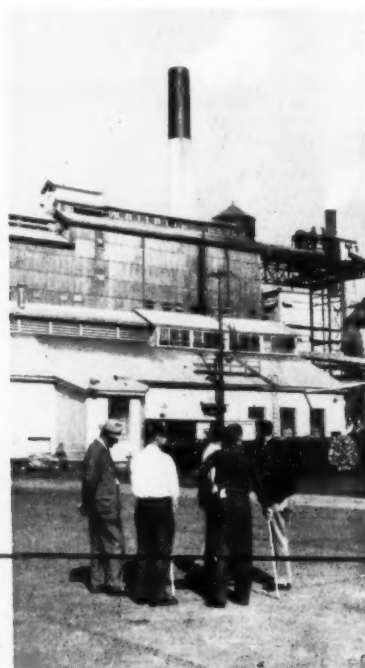
plans to come to grips with point No. 1 in its program, the study of forestland ownership. How to step up present efforts in the control of forest fire and ravages of tree insects and diseases will be given high priority. An inquiry into the forest fire insurance problem will be started at once, Mr. Besley said. (See forest fire insurance story, on page 20). As to the future, the Board of Directors and selected specialists will be asked to set up program priorities on a year-to-year basis, Mr. Besley said.

In spotlighting the forestland ownership situation, Mr. Besley said he was well aware that it presented con-

of forest land and timber volumes in this ownership, but also because of the many and diverse human needs which are affected by the management and the use of these strategically located areas. "The person who waters his yard in Portland is concerned that there be an adequate supply of water from Bull Run and that the management accorded that area and the protection given to it are such as to provide for a sustained and stable flow of high-quality water," Mr. Stone said. The worker in a store or factory in Portland is concerned with having an opportunity for camping and fishing and hunting, and is anxious that the



Weyerhaeuser's Everett Barton describes logging pictures that adorn Longview cafeteria to President Johnston and Lowell Besley



Longview Fibre Co., last stop on the trip is entirely supplied by sawmill leftovers

ers have learned to live and cooperate with the federal services administering public lands and forests; and usually any cry of 'bureaucratic arrogance' is just a cover for failure to obtain private advantage. In short, the West accepts the principle that our national resources must be administered in the broad public interest, and has many groups alert to defend that principle."

AFA Executive Director Lowell Besley, another opening day speaker, scored heavily in introducing the AFA's newly approved Program for American Forestry to the membership. In tackling first things first, Mr. Besley revealed that the AFA

troverisal and knotty problems. Nevertheless, the study must be made, said Mr. Besley and AFA is the best-qualified organization to sponsor the project. However, he warned that the study will not be any quickie proposition. It will be thorough, time-consuming and it will be representative of all points of view. Until its completion the status quo on public lands, in general, should be maintained, Mr. Besley said.

In an address on the role of the federal forests in the Northwest, Regional Forester J. Herbert Stone stressed that they are important not only because of the significant area

management given to these lands does not affect adversely his interest. Many people are employed by the timber industries in the Northwest. Their employment opportunity is affected by the kind of management which is given to this land. The farmer who waters his crops with water obtained from irrigation reservoirs trapping water from the mountains must have this life-saving fluid if he would maintain a high yield and consequently a high purchasing power. These interrelationships require the best basic knowledge of the underlying principles and their intelligent application. A strong program of research in the plant-soil-

water relationships, in meteorology, in forest and range management— all are necessary if the role of government forests in the Northwest is to be adequately met."

George Spaur, Oregon's state forester, further amplified Governor Patterson's address in describing the reforestation program on the Tillamook Burn while L. T. Webster, Washington's supervisor of forestry, stressed that a state forester in western states may be charged with the protection of as much as 23 million acres of state and private forest land from fire in urging that state foresters might well spend a fair share of their budgets on fire prevention programs. "The fire which never starts is by far the cheapest," he said.

A summary of the opening day's addresses and panel discussions was provided by Marshall N. Dana, assistant to the president, United States National Bank of Portland, who praised both the speakers and the delegates for their temperate and inquiring approach to the problems taken up during the day's schedule.

Another high point of the convention was an address on the evening of September 6 by Governor Paul Patterson, of Oregon, at the AFA Annual Banquet. Governor Patterson underlined that "we have had a workable partnership here in the west for a good many years in working with resource problems other than forestry. The interstate compact for development of the Columbia is one of the great voluntary

partnerships of our time. But the real test of the formula will come in the next few years. Can we make the plan, so successful in forest resource development, work in river development? We believe we can."

Governor Patterson said Oregon "has been running the nation's greatest forest laboratory as we go about the monumental task of regenerating, without federal aid, the vast 300,000 acre Tillamook burn. This is a multi-million dollar project of heroic proportions, and one of our strongest supporters and most interested observers is private industry."

Vista dome busses provided transportation for field tours that started September 7 with a trip to Crown Zellerbach's 135,000 acre Clatsop Tree Farm in the northwest corner of Oregon. A fine network of roads, protection measures that are being taken, the cutting methods and the multiple use program including hospitable treatment of sportsmen (two elk herds were on view the day of the visit), the provision that is being made for small parks and picnic groves, and the sound thinking that has gone into the task of providing for watershed needs (including water supply for several communities), all impressed the visitors.

The second day found the contingent heading up the picturesque Columbia River Highway on the Oregon side. Stops at lovely Multnomah Falls, with its 620 foot drop, on the Mt. Hood National Forest, and a visit to Bonneville Dam and

the salmon ladders were highlights of the morning. After a trip through the famed Columbia Gorge the expedition stopped for lunch at the Eagle Creek Forest Camp of the Mt. Hood Forest. According to Information Director Laurence G. Jolley, of National Forest Region 6, both the Multnomah Falls and Eagle Creek areas are being operated by concessionaires under Forest Service direction. Eagle Creek, which features picnicing and overnight camping, is one of four Forest Service campgrounds operated on a charge basis (25 cents per car per day, 50 cents per car overnight) in the Northwest. These charges have saved some of the very limited recreational funds available to the Forest Service, Mr. Jolley said. However, all of these are in need of more funds for maintenance if growing crowds are to be provided for. Mr. Jolley said in revealing that little work has been done on some of these areas since the days of the CCC. Despite the fact that limited funds for recreational activities were reported in both Glacier Park and the Mt. Hood Forest, members commented favorably on the spick-and-span appearance of areas visited which they felt was a compliment to the efficiency of both services.

Crown's Camas Mill—the biggest specialty paper mill in the world provided the excursion with a full afternoon of education following a trip over the Bridge of the Gods to the Washington side. Here the guests saw the wrapup of the forestry story started on the Clatsop Tree Farm the day before. Employing 2800 people, this plant produces a diversified stream of products ranging from the toughest of multiwall heavy duty bags to the shearest of tissues. Members were divided into small groups, each with an accomplished guide, for this trek through the wood plant (the 50-ton Berger Grapple Crane and the hydraulic barker were high-points), the machine room and finishing and packaging sectors.

On Wednesday evening September 8, members of the AFA were the guests of Columbia River and Puget Sound Sections of the Society of American Foresters where Rep. Harris Ellsworth, of Oregon's Fourth District, was the principal speaker. Referring to himself as a "forestry Congressman," Rep. Ellsworth declared that "trees are the principal economic force in the lives of four million people residing in Washington and Oregon." In maintaining

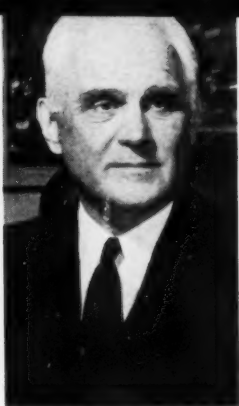
(Turn to page 57)

"Wait until next year," 1955 Meeting Chairman X. L. Pellicer tells President Johnston in describing program in Jacksonville, Florida





Mr. Hagenbarth



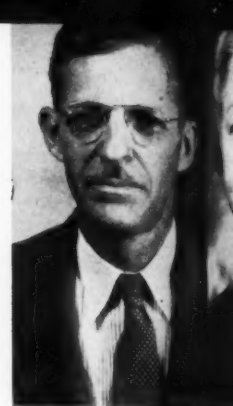
Mr. Compton



Mr. Abbitt



Mr. Smith



Mr. Shanklin

# Meet Your

The membership of The American Forestry Association this month will be asked to vote on ten candidates for the association's board of directors, five to be elected, and 21 honorary vice presidents. Elections Committee Chairman S. T. Dana has announced. Ballots to be mailed the middle of this month must be returned to AFA headquarters by November 30. Other members of AFA's elections committee are George W. Dean, William D. Hagenstein, and President Don P. Johnston, ex officio.

## Candidates for the board are:

**Smith, Philip W.**, New Hope, Pennsylvania. Mr. Smith is a life-long farmer who specializes in the breeding of Guernsey cattle. He is broadly interested in all aspects of the conservation of forests and other natural resources, to which he has devoted much attention in his extensive travels in the United States and Europe. As other forms of diversion from his main occupation of cattle breeding, he lists chess and study of the Encyclopedia Britannica. He has been a life member of The American Forestry Association since 1946, and was an active participant in the Fourth American Forest Congress.

**Jackson, Katharine**, Peterborough, New Hampshire. Mrs. Jackson is chairman and a member of the Executive Board of the New Hampshire Natural Resources Council. As a member of the New Hampshire Senate from District No. 11, she supported the New Hampshire yield-tax law and other constructive forestry legislation. She has been a leader in the activities of the New Hampshire Federation of Women's Clubs, and in 1953 studied the conservation activities of several European countries, with special reference to the conservation of water. She was an active participant in the 1953 Conference on Resources for the Future.

**Compton, Wilson**, New York, New York. Dr. Compton served as secretary and general manager of the National Lumber Manufacturers Association from 1918 to 1944, as president of the State College of Washington from 1944 to 1951, and as administrator of the U. S. International Information Administration in the Department of State from 1952 to 1953. Since 1953 he has been president of the Council for Financial Aid to Education. He is an honorary member of the Society of American Foresters, and has been a director of

The American Forestry Association since 1952, and was a member of the 1953 Higgins Lake Conference.

**Shanklin, John F.**, Washington, D. C. After some nine years of varied employment in the wood-using industries, Mr. Shanklin joined the National Park Service in 1933. Since then he has served as director of forests and as chief of land-use management in the Department of the Interior, in which he is now a member of the Technical Review staff in the office of the Secretary. He has been chairman of the Washington Section of the Society of American Foresters, is the present chairman of its committee on Natural Trees, and was a member of the 1946 and 1953 Higgins Lake Conferences.

**Pellicer, X. L.**, St. Augustine, Florida. Mr. Pellicer is vice-president of the St. Augustine National Bank. He has been a pioneer and effective leader in the development of forestry not only in Florida but in other parts of the South. His services have been particularly outstanding in connection with the Florida State Board of Forestry and the Florida Forestry Association, both of which he has served as president. He has long been a regular attendant at annual meetings of The American Forestry Association, of which he is a life member and was an Honorary Vice-President in 1953 and 1954.

**Sawyer, Robert W.**, Bend, Oregon. Judge Sawyer was editor of the *Bend Bulletin* from 1914 until his retirement in 1953. He was a judge of the County Court in Deschutes County from 1920 to 1927, a member of the Oregon State Highway Commission from 1927 to 1930, president of the Oregon Reclamation Congress from 1931 to 1937, and president of the National Reclamation Association in 1946-47. He was





Mrs. Jackson



Mr. Sawyer



Mr. Terzick



Mr. Shepard



Mr. Pellicer

# Candidates

a featured speaker at the 1953 Conference on Resources for the Future on "Who Should Control the Public Lands?" Since 1952 he has been a director of The American Forestry Association.

**Terzick, Peter E.**, Indianapolis, Indiana. Mr. Terzick is editor and advertising director of the *Carpenter*, the official publication of the United Brotherhood of Carpenters and Joiners of America. His belief that labor should take a more active part in the development of conservation activities is reflected in the columns of the paper which he edits. He was a member of The American Forestry Association's Magazine Committee in 1952, was a member of the 1953 Higgins Lake Conference, was a speaker at the Fourth American Forest Congress, and is at present an Honorary Vice-President of the Association.

**Abbitt, Watkins**, Appomattox, Virginia. After serving for sixteen years as commonwealth's attorney for Appomattox County, Mr. Abbitt was elected to the Eightieth Congress of the United States and has represented the Fourth Virginia District in the House of Representatives since that time. He has been active in forestry affairs in Virginia, and as a member of the House Committee on Agriculture he has consistently supported constructive national legislation relating to forests and other natural resources. Since 1951, he has been an effective member of the Committee on Conservation Awards of The American Forestry Association.

**Shepard, Harold B.**, Boston, Massachusetts. Between 1914 and 1929 Mr. Shepard saw service as an industrial forester, a consulting forester, and a special agent for fire insurance companies. From 1929 to 1938, and from 1940 to 1943 he was a forest economist in the U. S. Forest Service; and from 1943 to 1947 he was a forest economist in the War Production Board. Since 1947 he has been a forest economist in the Research Division of the Federal Reserve Bank of Boston. He was a member of the 1953 Higgins Lake Conference, and is at present an Honorary Vice-President of The American Forestry Association.

**David V. Hagenbarth**, Spencer, Idaho, is a woolgrower and cattleman. An influential spokesman for sound grazing practices in western states, he is highly regarded by both business and the government bureaus as an intelligent and influential leader and a man ideally equipped to represent the livestock industry on AFA's board.

## Candidates for honorary vice president are:

**Albright, Horace M.**, President, United States Potash Company, Chairman of the Board, Resources for the Future, New York, N. Y.

**Baggenstoss, Herman**, Editor, *Grundy County Herald*, originator of Tennessee Forest Festival, Tracy City, Tennessee.

**Collingwood, G. Harris**, Specialist in Forestry Legislative Reference Service, Library of Congress, Washington, D. C.

**Collins, Truman**, President, Collins Pine Company, Portland, Oregon.

**Crawford, Ivan C.**, Director, Colorado Water Conservation Board, Boulder, Colorado.

**Edgerton, Mrs. Malcolm J.**, The Garden Club of America, Stamford, Connecticut.

**Eldredge, I. F.**, Consulting Forester, New Orleans, Louisiana.

**Filberg, Robert J.**, President, Canadian Western Lumber Company, Vancouver, B. C.

**Fritz, Emanuel**, Consulting Forester, Professor Emeritus, University of California, Berkeley, California.

**Gumbel, Walter C.**, Soil Conservationist, Monongahela Power Company, Editor, *Journal of Soil and Water Conservation*, Fairmount, West Virginia.

**Gustavson, Reuben G.**, President, Resources for the Future, Washington, D. C.

**MacDonald, G. B.**, Dean Emeritus, School of Forestry, Iowa State College, Ames, Iowa.

**Nicholson, G. W. E.**, Executive Vice-President, Union Bag and Paper Corporation, New York, New York.

**Rathbun, Lawrence W.**, Forester, Society for the Protection of New Hampshire Forests, Concord, New Hampshire.

**Robertson, Reuben B., Jr.**, President, Champion Paper and Fibre Company, Hamilton, Ohio.

**Sanders, Paul D.**, Editor, *The Southern Planter*, Richmond, Virginia.

**Taylor, M. N.**, Executive Director, Trees for Tomorrow, Merrill, Wisconsin.

**Watts, Lyle F.**, Former Chief, U. S. Forest Service, Vice-President, Izaak Walton League of America, Portland, Oregon.

**Watzek, Peter F.**, President, The Crossett Company, Crossett, Arkansas.

**Weatherford, Mrs. Marion T.**, Conservation Chairman, General Federation of Women's Clubs, Arlington, Oregon.

**Woodbury, Charles G.**, Vice-President, National Parks Association, Washington, D. C.

Akron, Ohio, Attorney Fred O. Smoyer thought his trip on AFA's Conservation Caravan was too good to keep to himself. So he wrote the following story summing up the general reaction to our western trip

# The Conservation Caravan

By FRED O. SMOYER

THE 79th Annual Convention of The American Forestry Association in Portland, Oregon attracted a large number of forest enthusiasts, among whom were the writer and his wife and at least two other members of the Wood Collectors Society. Through the courtesy of The American Forestry Association, a Conservation Caravan was arranged, which departed from Chicago on the evening of August 30th by way of the Great Northern Railway aboard one of its fine trains, the Western Star. Wending our way across Wisconsin, Minnesota and the Dakotas, fresh and verdant by reason of recent rains, we came to Glacier National Park, one of the many interesting stop-overs on our journey to and from Portland.

Nature has been very kind in her gift to Montana of what many travelers believe to be America's most beautiful vacation land. Here, from the veranda of Glacier Park and Many Glacier Hotels, we had the good fortune to look out over the top of the United States and on beyond into neighboring Canada. The mountain air invites peaceful, restful sleep and relaxation among the sapphire lakes of the park and with sunsets of ever-changing colors. Vast virgin forest lands, wild flowers in profusion and snowfed streams welcomed us to this part of primitive unspoiled America.

On one of our side trips through the Indian Reservation, we came upon a large flock of sheep herded by a Blackfoot Indian and his dogs. There were thousands of bleating fat sheep crossing the highway on their way to a nearby stream. Limber and lodge-pole pine, Englemann spruce, quaking aspen, alpine fir and alder are intermingled along the trails, together with a wide variety of shrubs, trees and flowering plants. On a walk along the trail around Swift Current Lake, we encountered specimens of elderberry, mountain ash, whortleberry,

Saskatoon service berry, black and red twinberry and the western thimble berry, also currants and wild gooseberries, the latter being disease carriers. A low creeping shrub known as bearberry but better known by its Indian name of Kinnikinnick grows profusely over the mountainside. Its flowers are bell shaped and its leaves paddle shaped, leathery and evergreen. Its fruit is a bright red berry, insipid and seedy but is eaten by the birds and bears. The leaves mixed with those of other plants are smoked by the Indians in place of tobacco. Bear grass is considered to be the park flower but its common name is a misnomer as it is not a grass and has no connection with bears. It is a member of the lily family and is known in the Pacific northwest as basket grass or squaw grass because the leaves were used by the Indians of that region for weaving baskets. Some of our party went to the foot of Grinnell Glacier, the most accessible of the 60 glaciers in the park.

The geological history of Glacier Park is of great interest to all students of geology. As a result of major disturbances of folding and faulting occurring over this region, there are beautiful exposures of green and red Altyn limestone which intermingled with the green foliage makes a striking picture. This same colored limestone forms the bed of the swift mountain streams. We should have been glad to have the convention held at Glacier Park but there were many other places of interest and things to see on our way to the Northwest.

Our first introduction to the lumber industry was at the plant and tree farm of the J. Neil's Lumber Company at Libby, Montana. Here we heard a new word in our vocabulary, the forestry term called "sustained yield." Tree farming is a new type of business in the northwest—that of growing timber as a crop. It apparently is a good busi-

ness, producing a steady and perpetual supply of forest products for the mills and continuous jobs and payrolls for the workmen of the great Northwest. The plant at Libby covers 125 acres with 800 employees, producing 85,000,000 board feet of lumber a year, enough to build 8,000 modern houses with numerous by-products. They control 200,000 acres of the nation's finest forests of larch, Douglasfir and ponderosa pine, with lesser quantities of spruce, lodge-pole pine and cedar. They take the sustained yield program very seriously. In order to insure a perpetual timber crop, they practice selective logging, maintenance of fire controls, insect control, reforestation and tree planting. They are a major producer of telephone and transmission poles and we were shown huge stacks of poles, some 120 feet in length of straight Lodge-pole pine, but as in all industry the lumber business has its shadows as well as its sunshine. The J. Neil's Company is threatened by a proposed Federal dam constructed near its plant on the Kootenai River which would seriously interfere with its operations. But more about the dam situation later.

Another fly in the ointment is the prevalence of insect infestation from the fir bark beetle and other ravaging insects, which has destroyed more fine old growth timber each year than has been produced by all of Montana's great sawmills combined. These tiny beetles with an appetite for the cambium layer of the bark next to the wood of the Englemann spruce and Douglasfir are stealing from our forest resources in ever mounting rates in the face of intensive efforts of Federal, state and private agencies to slow them down.

Spearheading the battle for the defense, the foresters are moving on two fronts, one being an aerial spraying against needle eating bud-

(Turn to page 40)

# COMPARE

## Mall SAW CHAIN

MALL SAW CHAIN HAS  
 $\frac{1}{2}$  MORE CUTTING  
SHANK



WITH ORDINARY  
SAW CHAIN

ORDINARY SAW CHAIN  
HAS LESS  
CUTTING  
SHANK



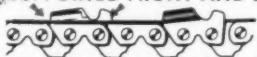
MALL SAW CHAIN IS  
SHARPENED  
TWICE  
BEFORE AND AFTER PLATING



ORDINARY SAW  
CHAIN IS SHARPENED ONCE



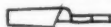
MALL SAW CHAIN IS  
SUPPORTED FRONT AND BACK  
NO WHIP • CUTS SMOOTH



ORDINARY SAW  
CHAIN HAS  
NO SUPPORT • WHIPS



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These instruments are rugged . . . designed to stand up without the need of constant adjusting even under the rough usage of forest work.

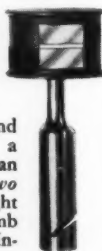
### THE RIGHT ANGLE PRISM

This compact instrument consists of a single ground triangular prism and it, therefore, cannot get out of adjustment. A plumb bob can be attached to the hook of the handle.



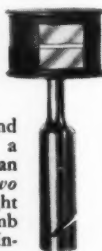
### THE RIGHT ANGLE MIRROR

This instrument gives a slightly larger field of view and is adjustable. As an added feature, a small plumb bob is conveniently stowed in the handle.



### THE DOUBLE RIGHT ANGLE PRISM

Consisting of two ground pentaprisms separated by a plano-parallel element, it can be placed on a line between two points and a third point at right angles can be sighted. A plumb bob can be attached or the instrument can be mounted on a staff.



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## Ketchikan's "Catch"

(From page 13)

Prince Rupert, for subsequent rail shipment to paper mills and converters.

This, in bare outline, was the idea which now began to stir in the minds of both foresters and industrialists—and in the minds of Alaska's people who longed to see a year-around industry in the Territory. An industry which would not only furnish a new payroll, a new product which would bring new dollars into the north—but an industry which, in self-interest, would want to see the forests perpetuated.

And then, at the close of World War II, in 1945, Fred G. Stevenot of San Francisco, then head of Puget Sound Pulp and Timber Company of Bellingham, talked with a Golden Gate newspaper publisher who said he needed newsprint and thought it could be had out of Alaska.

But despite the lush times, newspaper publishers and even paper manufacturers began to lose interest in Alaska. A lot of money was necessary; Alaska seemed far away indeed; and of course it would be necessary to enter into an agreement with the U. S. Forest Service as to timber.

Stevenot and Lawson Turcotte, who succeeded him as president of Puget Sound Pulp, were loathe to let go of the idea of operations in the great northland. And they had talked many a time with Frank Heintzleman and caught the vision. They began to think of Alaska in terms of a quality wood pulp—a product of far higher dollar value than newsprint.

The oldest and largest rayon producer in this country was, and is, American Viscose. In 1946 it acquired the extensive Sylvania cellophane operations, which greatly increased its wood pulp needs.

And so, checking once again with the U. S. Forest Service, the management of both companies began to come together. A partnership was created which, on its face, includes only the management of Puget Sound Pulp and Timber Company of Bellingham, and the giant American Viscose organization.

In reality it includes the U. S. Forest Service and the peoples of the Territory of Alaska which one day soon will be a commonwealth of the United States. For the Tongass National Forest is theirs, and the Ketchikan

Pulp Company is no less mindful of that than is the Forest Service.

But it takes one thing more than timber, and water and power and people, to create what has turned out to be the most modern wood pulping operation in North America, some say.

It takes capital.

In this instance more than \$52 million were required—seven times the original purchase price of Alaska from the Russian government!

The management of Puget Sound Pulp and Timber could furnish some of that, but not nearly all. The management of American Viscose could furnish some, but not all. Financing was necessary; and behind all the financing were great insurance companies.

And behind the insurance companies were a lot of little policyholders, even as you and I. Probably nowhere on the North American continent, then, is there any better example of the interwoven, integrated pattern of people, and perpetual forests, and wood utilization for the greatest good of the greatest number—than in Alaska's first wood pulp mill.

It is not, of course, the only new high alpha wood pulp production to be brought into production this year. It will not be the last in Alaska, or the States. But Ketchikan Pulp does have special interest attached to it because of its relation to the development of what is surely the nation's last great frontier.

To realize the truth of this you need only to fly to Annette Island from the States, then shuttle over the town of Ketchikan to Ward's Cove.

As the amphibian banks in, to land at the dock-side of the bright new mill, you see below you those incredible forested granite peaks so characteristic of Alaska.

And then you see, on one side of the once almost unknown body of water, a red-roofed salmon cannery. Yesterday it was the symbol of Alaska's greatest industry aside from mining. Yesterday it was "a big operation" in the northland.

Then, across the little bay, you see the giant wood pulp mill—unbelievable and yet real. It is set upon the granite of the Territory. But more to the point, it is based upon the great rain-forests of Tongass.





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## The Conservation Caravan

(From page 36)

worm infestation but the most practical control is the logging of timber infested with beetles, which salvages the doomed timber and moves the vast beetle broods out of the woods. Effective control is also practiced through the eradication of all currant and gooseberry bushes, which it has been found are carriers of the blister rust affecting the white pine. The battle against these vicious tree killing insects goes on with grim determination. Another enemy of the young evergreens is the deer and elk population which feed upon the new growth and strip the young trees as high as they are able to reach. Exclusion areas are being provided which are fenced and in these inclosures there are fine stands of new trees in large numbers. Bears and porcupines have developed an appetite for the inner bark of the spruce and have ruined large numbers of growing trees too small to cut. The beavers also flood certain areas, drowning the young growth and they have been declared predators in the state of Washington. It is encouraging that the work of reforestation goes on and as of today there are 47 Montana tree farms totaling 850,000 acres. Montana leads all other states in the production of Christmas trees, more than seventy per cent of which are grown on private lands.

Twelve miles south of the west entrance of Glacier Park in a deep narrow canyon five miles south of the confluence of the south fork of the Flathead River with the main stem is the site of the new Hungry Horse Dam which we visited. It is but one of the more than 110 storage dams already in operation by the Bureau of Reclamation operating under the Department of the Interior in seventeen Western states, with multiple purpose projects including the development of irrigation, power, flood control and other water resource benefits.

It would serve no useful purpose to quote statistics as to the dam, power plant, the spillway and the reservoir except to say that it has four generators now operating which develop 285,000 kilowatts of electric power marketed throughout the northwest through the Bonneville power pool. A similar dam at Bonneville on the lower reaches of the Columbia River develops 518,400 kilowatts through its ten generators and Grand Coulee, largest of the

dams, is capable of developing 1,944,000 kilowatts.

As you are aware, the Columbia River provides spawning grounds for tremendous runs of salmon, trout and other migratory fish. We were in Portland during the salmon derby, when a prize is offered for the largest salmon caught, and great schools of enormous silver and Chinook salmon were fighting their way upstream to their spawning grounds where they deposit their eggs and then die. To permit the upstream passage of the fish, at Bonneville Dam three fishways or ladders have been constructed. Each fish ladder consists of an inclined flume 40 feet in width, in which are installed a series of weirs creating successive pools each of which is one foot higher than the next one downstream. These ladders permit the adult fish going upstream to reach the higher water level above the dam by swimming or jumping from one pool to another. Counting stations manned by women are in operation at each ladder to observe the success of the fishways and to obtain data necessary for the conservation of fish in connection with dams yet to be built on the Columbia River.

The development of hydroelectric power in the Columbia River basin is almost beyond human comprehension. The Columbia and its tributaries are fast flowing streams, the second largest in the United States. Electricity from falling water is relatively cheaper than power produced from fuel. Already six Columbia River power generating plants have been built. Seven others are under construction and nine others have been authorized, with a total capacity of 9,800,000 kilowatts. This has brought new industry such as aluminum, aircraft and atomic energy development, creating thousands of jobs and broadening and stabilizing the regional economy. There remains the ever present controversy between private industry and public ownership of natural resources, including our rivers. It would seem that the Eisenhower partnership plan to permit the use of Federal funds where a need is apparent for services which private capital cannot or does not supply would be a reasonable program and as a result great industrial development in the northwest can be expected and the future of Oregon, (Turn to page 56)

# THE BOOK SHELF

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## Teacher-Timberman

(From page 15)

T.J. has tried just about every known method of selling timber. For himself, he doesn't care to own trucks and "cats" and do his own logging. He prefers to find capable loggers, teach them to carry out his ideas, and to contract all logging and hauling operations. Thus he sells logs at the mill pond, or he sells stumpage. He has a number of loggers working for him year after year. You would be greatly impressed by the careful logging these men do—it's hard to find a tree they have injured or any salvage material they have overlooked. T.J. is just about as strict with loggers as he was with students, but capable loggers have stuck with him for years. He doesn't mind seeing them earn a dollar; he has one man and wife logging team—the woman prefers to log rather than keep house—that were earning \$1000 per month.

Beyond any doubt, dozens of larger than average forest owners in the Northwest and elsewhere can profit from the Starker system of training a reliable logger to, in effect, take care of the harvesting and salvaging program. The careful attention necessary in selecting and training a logger at the start is more than repaid later by freedom from many details. The system runs by itself much of the time on the Starker forests. They always have a number of loggers at work.

Starker does very little slash burning. He may burn out landings and other concentrations of slash. The remainder is worked into the soil with "cats."

Having trained loggers to do some of their routine forest management, T.J. and Bruce are able to devote more time to acquisition. Possible purchases are most carefully examined—T.J. is one of the best land examiners ever developed in this country. His system: “look at 10 and purchase one.”

Starker does not view with alarm the decreasing inventory of West Coast saw timber. He says that with a reasonable care the recuperative powers of the forest lands of western Oregon and Washington are tremendous. He is concerned, and articulate, over forest tax developments since the war. He will cite cases in which the tax has increased 600 percent in one of the counties where he



owns lands. Hard pressed for new revenues by their swollen school rooms, Oregon counties are upping timberland taxes, following the principle of assessing standing timber. One of Starker's arguments is that taxes on an acre of old-growth could run \$75 a year; however, his concern is that the tax on immature timber may be detrimental to the holding and growing of timber stands. "I have studied forest taxation for 40 years and have found no perfect solution," he says. "I believe the tax should be based on the ability to produce wood fiber, in other words, on the forest site, with modifications according to access."

As a professor, T.J. was a strict grader, a stickler for punctuality and getting things done. His character is that of an individualist and disciplinarian, who holds to standards for himself and for others with whom he does business. Loggers coming into his woods for their first jobs have listened with open-mouthed amazement as T. J. pointed out how things were to be done. But, after recovering from the shock they would find that the requirements were not impossible and in time they become proud of their performances in the Starker forests.

T.J. doesn't smoke or drink; he rises early; he believes men should work for what they get. He put his son Bruce on a salary—and not too large a salary at that. In fact, Bruce was obliged to work on his own house to get it done, just like any other weekend house builder. If T. J. observes forestry school trucks a few minutes late on their way to field labs, he is as likely as not to comment on the situation. He believes public agencies have too many workers for what they accomplish, and will point this out to federal and state forestry people on occasion. You'd expect an individualist like Starker to say what he thinks. No one accuses him of being modest in this respect. He is even rash enough to skirmish with the local newspaper editor when the only battlefield is the editor's own columns.

Such a man does not lack critics. There are people around Corvallis who refer to Starker as a "controversial figure," which may be a way of saying that they do not approve of his ideas or of the things he has done. One criticism is that he paid too little for his land and timber. He would probably admit he doesn't pay any more than he has to, and he might ask where he would find any

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10-54

organization or person that does. Certainly T.J. would be less criticized if he had never been a professor. In fact, he recalls in the case of his first purchase of a timber tract, a sawmiller who also wanted the land was especially aggrieved that a professor got ahead of him.

T.J. has no secretary or managers. He and Bruce operate 35,000 acres of forest as well as other real estate interests. Friends do not see T.J. wanting any retirement ease. Despite the heavy weight of his own affairs, he has been definitely community minded. For years he was on the city park board and is credited with the leadership that developed for Corvallis its superb and beautifully wooded Avery Park, haven for hundreds on any summer evening. He was for years chairman of the Drive Committee of the Corvallis Good Samaritan Hospital that raised \$250,000.

People who have known T.J. will credit him with these notable traits. First, there are his habits of industry. "He just worked harder than the rest of us at this business of buying land," admitted one envious lumberman. "I could have bought some of those good tracts myself. Maybe I was downtown having a beer while he was up in the hills drinking spring water." Secondly, Starker undoubtedly has unusual business judgment, coupled with a restless mind that continually projected itself into the future to visualize the next turn of economic events.

Hardy Glascock, Industrial Forestry Association forester, correctly named a third Starker asset as his ability to simplify complicated forest management problems. "T.J. lets details drop into the background. He is able to keep the main things in focus as few men can." As an example Glascock pointed out that Starker made only four statements in his plan for the 800-acre Dan Farmer Certified Tree Farm. This management plan, only one-third of a page long, seemed to meet all the essential needs.

You will have certain impressions after you have been around with T.J. over his lands. For one thing, you will feel confident that here is a man who understands the directions of nature. You will feel that under his methods, the land is on its way to full harvest—and that he will work with nature to improve these lands with the very minimum of human attention or fretting. This professor has shown that he can apply his knowledge and make it pay.



FOUNDED FOR  
PUBLIC SERVICE

Shortly after the establishment of a Division of Forestry in the Department of Agriculture, The American Forestry Association organized (1882) an American Forest Congress at Cincinnati. This Congress later merged with The American Forestry Association. On the heels of this important action, the Association's efforts caused the states to look favorably upon forestry programs. For instance, New York in 1885 undertook public forest administration, followed by California and eventually the other states.

### Tree Planting—Fire Protection

Soon after organization, the efforts of the Association were directed toward building up an informed public opinion in order to obtain badly needed state and federal legislation to provide tree planting and more adequate fire protection.

### Origin of National Forests

The year 1891 marked the beginning of our national forest system and culmination of The American Forestry Association's first national objective. Congress gave power to the President to establish forest reserves from the Public Domain, and President Harrison set aside 1,239,000 acres in Wyoming as the Yellowstone Timber Reserve, now known as the Shoshone National Forest.

### First State Forestry School

When the first state forestry school at Cornell University was dedicated in 1898, The American Forestry Association was given full credit for educating the public to the need of forestry education. "The establishing of a Forestry Department by the State of New York was due to the work of The American Forestry Association."

### Wise Use of Resources

In 1905, the second American Forest Congress was called by the Association, to dramatize effectively the whole question of natural resources. It is credited with having a deciding influence on the U. S. Congress. Three weeks later, the Act of February 1 was passed, transferring the forest reserves to the Department of Agriculture. This Act was important because it:

1. Opened the natural resources of the forests to legitimate use;
2. Placed the federal forests in the hands of foresters;
3. Stabilized for all time the principle of reserving for public purposes federally-owned forest land;
4. Marked the beginning of American forestry on a broad scale.

### National Forest Watersheds

The American Forestry Association helped work for the passage in 1911 of the famous Weeks Act which established a new national policy, the purchase by the federal government of private forest lands for incorporation into national reserves in order to protect the flow of navigable streams. One of the many fine results of this Act is the 5400-acre Co-weeta Hydrologic Laboratory on the Nantahala National Forest where extensive watershed studies on the headwaters of the Little Tennessee River furnish valuable lessons in land use techniques.

**FOUNDED IN 1875, the first national forestry association in the United States, THE AMERICAN FORESTRY ASSOCIATION has a history of accomplishment in sponsoring conservation in forestry as well as in allied resources fields.**

### Combating Tree Diseases

One of the first boosts to forest pathology came in 1912 when The American Forestry Association appealed to Congress for an investigation of tree diseases. \$80,000 was appropriated at that time.

### Helping State Forestry

During the period 1913-15, The American Forestry Association helped deflect a movement to transfer the national forests to the states, advocating rather that the states establish forest areas of their own. In 1914, it helped Virginia get a state forestry law.

### Hemisphere Forest Resources

At the Panama-Pacific Exposition in San Francisco in 1915, The American Forestry Association propounded the viewpoint that forestry should be nationwide, all-concerned, rather than an individual east or west viewpoint. This meeting brought about in 1916, the recommendation of the Association for a co-operative study of the forest resources of the two American continents and the suggestion that uniform grades and specifications for North and South American forest products be mutually adopted.

### Memorial Trees and Forests

Thousands of trees were planted as a result of the memorial tree planting campaign started by the Association in 1918 to honor war dead. And in 1920, the Association sent huge gifts of tree seeds to England, France and Belgium to reforest war-torn land.

### Recreation Area Survey

The American Forestry Association with The National Parks Association undertook a survey of federal parks, forests, reservations, and other public lands and waters in 1924, one of the results of which was the establishment of the first wilderness area, the Gila National Forest in New Mexico—a big boost to the concept of outdoor recreation.

### Rural Forest Fire Prevention

In 1925, the Association started its 3-year Southern Forestry Educational Project as a rural forest fire prevention program.

### Support of Forest Research

The AFA in 1928 gave its full support to the McNary-McSweeney Act (45 Stat. 699) authorizing a program of forest research to promote the full use of growing timber, and a nationwide survey of forest resources.

### Popular Wilderness Expeditions

The Trail Riders of the Wilderness, annual project of the Association, started in 1933 with a horseback caravan into the Flathead National Forest of Montana. So successful was this pioneer trip that similar expeditions have grown in popularity every year since.

### Fire Heroism Awards

In 1938, the American Forest Fire Foundation was founded to provide recognition for outstanding heroism in firefighting. The American Forestry Association is trustee for the funds and the medal. In 1939, following the disastrous New England hurricane, the Association launched a fire prevention campaign, and Congress voted one billion dollars for conservation.

### Wartime Action

Protection of forests became an even more important factor when Japan struck at Pearl Harbor in 1941. The American Forestry Association held that three lines of action should have undisputed priority: (1) forest protection; (2) maintenance of continued production; (3) accelerated research in the use and production of cellulose and other forest products.

### Program for American Forestry

In 1946, the Third American Forest Congress was called by The American Forestry Association, preceded by the nationwide Forest Resources Appraisal. The result was the Association's thirty-point Program for American Forestry.

### Five Year Progress Report

An American Forestry Association Task Force Committee in 1949, started a five-year report on the progress of American forestry and set up a national committee to study and recommend action on the problem of mounting forest insect and disease losses.

### Conservation Awards

It was in 1949 also, that The American Forestry Association dedicated the Muskingum Watershed Conservancy District and established presentation of conservation awards as a regular annual feature to honor those who have distinguished themselves in various fields of conservation endeavor.

### Three-Quarter Century Mark

1950 marked the seventy-fifth anniversary of the Association—three-quarters of a century of action programs designed to enlighten the public to conservation and development of America's forests and related resources of soil, water and wildlife for the good of all Americans.

### And These Programs Continue

Following a Fourth American Forest Congress last year, the membership of the AFA overwhelmingly adopted a New Program for American Forestry emphasizing three major goals. These are: 1) To meet the essentials of forest protection; 2) To improve the national timber crop in volume and quality; 3) To obtain the maximum of economic and social services from our forests by realistic application of the principle of multiple use.

**The American Forestry Association's record is one of public service. Its continuing work is supported and financed by its steadily growing National Roster of Members, to whom the nation owes an ever greater debt of gratitude. Your Nominations for Membership will be welcomed here in Washington—please place them on the other side of this sheet and each person will receive a cordial invitation to join The American Forestry Association.**





Illustration, courtesy of Pine Acres Farm, Hampton, Conn.

## *It is your privilege to nominate friends*

who might join you in your liking for the work of The American Forestry Association in the conservation and development of America's forests, and related resources of soil, water and wildlife for the good of all Americans. Please write one or more of their names with addresses below. Then mail this coupon back to us and we will see that each of them receives an Invitation to become a Member.

To Fred E. Hornaday, Secretary, *The American Forestry Association*, Farragut Square, Washington 6, D. C.

I wish to nominate for Membership in The American Forestry Association, the following people:

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ADDRESS \_\_\_\_\_

NAME \_\_\_\_\_ PLEASE PRINT

ADDRESS \_\_\_\_\_

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My Name \_\_\_\_\_ PLEASE PRINT

Address \_\_\_\_\_

When we send the Invitation to Membership, may we mention your name?

☐ YES

☐ NO



## Will Forest Fire Insurance Work?

(From page 21)

feasible. The insurance will be feasible to a timber grower if it is the kind of insurance he needs and the price is sufficiently low in relation to the gross earnings from his forest property. It will be feasible to an insuring organization if the terms are in line with safe practice and premium collections are sufficient to cover incurred losses and operating costs, now and in the future, with a little something to spare.

The best way to forecast what will happen in the future is to look at the record of the past. Does the forest fire record make application of the insurance principle appear feasible? Are loss and damage from forest fires low enough in the nation to permit the sale of insurance at prices the forest property owners would be able and willing to pay?

The United States Forest Service says that there were in the nation in 1953 almost 427 million acres of forest land, commercial and noncommercial, owned privately or by the states, counties, and municipalities. The Forest Service has observed and reported on forest fire occurrence on these lands for many years. The record covers all the states except North Dakota, Nebraska, Kansas, Wyoming, and Arizona. These are not heavily forested states and the extent of private forest ownership in them is relatively small. Of the 427 million acres, more than 9.6 million acres—2.25 percent—were burned in 1953.

If this burning of more than two percent of the area in one year were the whole story we would have to give up the idea of trying to do anything about forest fire insurance. Fortunately it is not the whole of the story. A closer look at the record puts the prospects in a much better light. The accompanying chart shows that, in 1953, there were 31 states in which organized fire protection was afforded to 100 percent of the forested area. In 12 other states, for which records are available, almost 53 million acres were without any protection. Three-quarters of the area burned in the country was on this unprotected area of which fire ran over more than 13 percent in 1953.

The chart also shows that, during the 10-year period 1944 to 1953, average areas burned annually varied

between 0.02 percent and 2.18 percent in the fully-protected states. In the partially-protected states, mainly in the South, areas burned varied between 0.29 percent and 2.49 percent on the protected portions. In three of the fully-protected states, West Virginia, South Carolina and Alabama, yearly percents burned were 1.53, 1.16, and 2.18 respectively. These three states accounted for nearly 60 percent of the area burned in the fully-protected states during the decade. The area burned in an average year in the other 28 fully-protected states combined was 0.22 percent—455,000 acres on a total forested area of 209 million.

The total value of the insurable timber on these 209 million acres, of all ages and sizes, can be conservatively estimated at at least six billion dollars. If the ratio of value lost to total value were the same as the ratio of the area burned to the total area, the average annual loss in these 28 states would be 22 cents for each \$100 worth of timber, more than \$13 million altogether.

**Annual Losses**—The annual loss, in value terms, has, fortunately for the prospects of forest fire insurance, been even less than this. Forest fires do not consume living trees. They often kill them but the retention of salvable value is a general rule. Some fires burn lightly and cause slight or even no damage to trees of marketable size. The recorded area burned frequently includes recently-cut land or land bearing only worthless scrub and brush. On the other hand, forest fires are sometimes "crown" fires that kill all the trees they touch. If the killed timber is below usable size, all the value it possesses is lost. Salvage is not possible as is the case with timber of marketable size. The fact that salvage is effected does not, nevertheless, necessarily mean that no loss has been incurred. Fire-killed timber seldom brings as good a price as green timber. Large quantities of fire-killed timber were logged after the Tillamook conflagration of 1933 in Oregon and the conflagration in Maine in 1947. In both cases the net loss was substantially below the gross figure indicated by the quantity of timber killed.

Some years ago the U. S. Forest Service made exhaustive studies of

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forest fire losses to determine their significance in insurance terms. A study of the northeastern states disclosed that the burning of 0.42 percent of the privately-owned forested area resulted in a net loss of only 0.13 percent of the timber value. This was the annual average for the decade ending with 1934. During the decade ending with 1953 the corresponding figures were 0.19 percent and 0.06 percent. Forest fire protection has been making progress. A study of forest fire losses in the Pacific Coast states indicated similar conclusions. These studies involved detailed damage cruises on more than 250,000 acres of burned-over forest land.

If the net loss of timber value is less than one-third of the loss indicated by the percent of the area burned, as this calculation indicates, the average annual loss in the 28 northern and western states has been, in insurance terms, about 0.07 percent—seven cents per \$100 of value and only a little more than four million dollars altogether. Such a rate of loss gives strong support to the conclusion that forest fire insurance is feasible in an extensive portion of the United States. It is well in line with the rates of loss on types of property the insurance of which is common practice. The aggregate value and geographical spread appear sufficient to fulfill the needs of practical and sound insurance underwriting.

*Establishment of Forest Fire Insurance*—How can advantage be taken of this favorable situation and what is the next step toward establishing forest fire insurance as a widespread general practice? The recommendation in "A Program for American Forestry" suggests two approaches. One is to work with the established fire insurance organizations in an attempt to encourage them to undertake the business. Such an approach has a number of favorable aspects. The fire insurance companies, stock and mutual, have immense insurance-carrying capacity in combination with each other in their separate fields. Their long experience with matters relating to insurance would bring distinct advantages.

The other approach would be for the forest owners to band together and form their own forest fire insurance organization. If they were to do this they would be following the precedent by which forest fire insurance came into being in the Scandinavian countries. AFA's suggestion

makes this a second choice but it is possible that this method might have some advantages. It is possible to raise the question whether it is better to have insurance people learning about the forests or forestry people learning about insurance. Forest fires may be less mysterious to the forestry people. If they were to go into the insurance business they might nevertheless find it advisable to engage the services of some experienced insurance men.

*How AFA Can Help*—What are the necessary steps preliminary to a forest fire insurance action program? What can The American Forestry Association do to help? Getting forest fire insurance onto a "going concern" basis will not be a simple or easy undertaking. On the other hand there do not appear to be any obstacles that firm determination, patience, and sound judgment could not overcome. The existing state of affairs appears to indicate that AFA's first step might well be toward the formation of a forest fire insurance committee. The course of action from there on would depend on the committee's decisions based on the findings of its exploratory work. Perhaps the safest speculation on that point is that such a committee would have no difficulty in finding plenty to do.

The emphasis in this article on the opportunity for forest fire insurance in 28 states in the North and West does not mean that opportunities do not exist in other states. Our information clearly indicates a greater concentration of opportunities in these northern and western states under existing conditions. There are doubtless many individual properties in other parts of the country that comply with essential underwriting criteria. As protection becomes more effective their numbers will increase. In reverse, there are probably numerous properties within the 28 states the insurance of which would be inadvisable. As loss probabilities vary between states they also vary between counties, towns, and ownerships. Cape Cod, Long Island, southern New Jersey and southern California are examples of areas where it would be necessary to tread with caution because of special difficulties in handling the forest fire menace.

The application of the insurance principle to forest properties will involve details. It will be necessary to devise policy forms suitable for use with this special type of property, protecting both parties to the agree-

ment. There must be agreement on coinsurance and deductible requirements. Full indemnity may not be advisable, particularly at the outset. Provision should be made for types of policies attractive to large owners who are self-insurers against ordinary fires.

Differential rating schedules will make it possible to determine premium rates in proportion to the probability of loss on individual properties. Fire hazards vary according to the type and size of the timber, the topography, local climate, forest use and other factors. The protection is better in some parts of some states than it is in other parts. A standard system for grading protection organizations would be indispensable following the general pattern by which cities and towns are graded according to the effectiveness of their fire and police departments, their water supplies, hydrant systems, and other protective facilities. Premium collection must allow for contingencies and for uncertainties that remain even after the most careful preliminary study.

Prospects of success will be better if the insurance is spread over the widest possible expanse of territory and variety of hazard conditions.

The effects of a bad fire season in a part of the country are usually offset by favorable weather conditions in another part. Insurance confined to a single local region could run into difficulty for lack of adequate opportunity for the operation of the law of averages.

Fire insurance would not eliminate all financial aspects of the physical risk that timber growing incurs. The risk of loss from tree disease and insect epidemics, wind, and other agents of destruction would remain. Systems of insurance against these risks might follow the firm and successful establishment of insurance against fire.

There are good reasons for believing that private forest owners will grow more logs, pulpwood and other primary forest products when they are able to buy forest fire insurance at reasonable cost. The effectiveness of forest fire protection will advance still more rapidly when the insurance organizations cooperate with the protection organizations with that purpose in mind. An action program to promote forest fire insurance will be an appropriate undertaking. The American Forestry Association has an opportunity to play an important part in such an effort.



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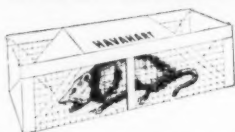


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## Ever Pet a Coon?

(From page 19)

When we were alone everything went fine. He was a charming little boy with shiny, shoe-button eyes, and a sweetness that made me his slave. He'd play with my jewelry, hide it everywhere within reach, toss the blue jay feathers I brought him into the air, and dawdle over his bottle like any baby. He knew when he'd finished with it I'd leave him alone in the house for a while, and go back to work. So he'd lie in my arm, taking an occasional pull, patta-caking with his hands, sticking his feet in his mouth, all the while gazing up at me out of that

bandit mask with mischief in his eyes.

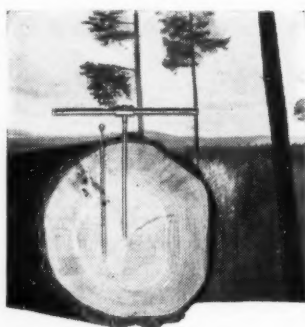
Just let visitors come in and he was off to the races. Some people used low, calm tones with him but most folks were so delighted to see and touch such a cute personality boy that they screeched and giggled and gave him their undivided attention—and it made a brat out of him. Merrily he'd climb their fronts, explore their ears, play with their jewelry, get the cigarettes out of their pocket and roll them between his hands, and reach inside their shirts or dresses to feel the smooth, warm hide on these humans. All the time he was grinning from ear to ear.

Every afternoon that I could find an hour or two we'd go down one of the park trails together, to the creek. Felix bounded along at my side like a puppy, and then, when he'd hear the stream he'd run on ahead, and jump in. While I sat on the bank he splashed around, trying to stop the ruffles and reaching deep in all the pools for little water creatures so dear to any coon heart.

On the days when I couldn't get any time off Felix would go visiting in the camp of a family I knew. Once I was out of sight he forthwith became master of the situation, doing as he pleased, or else biting everyone. When I came to collect him my mercurochromed and bandaged friends stood amazed, watching him tear to meet me, climb up and wrap his arms around my neck, halo bright and gleaming. You never saw anything look so innocent. Yet they clamored for the privilege of being mangled by this little fellow who was never slow to seize an opportunity.

Thousands of people who visited Big Basin will remember Felix. He stole their hearts. He swaggered and strutted in their presence, grand-standing every minute he was awake. And when he became sleepy he cuddled up in their arms, rubbing his chest very slowly, then his ears and his long, flat face, and finally giving up.

He got himself in awful Dutch one day, though. The park was in the throes of a water shortage, and it looked for a time as though we might have to close. Suddenly there was no water at all in the Picnic Area, and the place was jammed with people. An anxious crew set out to



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see if there was a leak in the line. There wasn't but there was, shall we say—a misuse.

For Felix had grown by now into quite a hunk of coon, big enough to get up on a chair and climb into the bathtub where he figured out how to turn the faucets. Furthermore, he had discovered that there was an even better bubbling brook in that bathroom. If you could stand up and pull the lever it would set off the most delightful series of ripples! Then all you had to do was to jump in and play in the gurgling water. You didn't have to wait until afternoon for a live stream to play in.

So in my absence Felix was making his own fun. Noon came, and the rangers had followed the water line as far as my cabin where they noticed that the toilet was flushing one time after another. The bathroom was off limits after that until the water supply of the Picnic Area and the Ranger Residences could be built up again.

Felix had trouble with a bar of soap, too, along with his puddlings. I found him alternately hiccupping (which he always did when he was excited) and blowing out bubbles that exploded in his eyes and made them sting. He had to be hosed out. And yet he was always ready to sit astraddle of the faucet on the wash basin while I washed my hair, dipping his hands into the suds and helping me scrub my head. We were awfully companionable. Even when I'd be typing a letter he'd be on my lap, watching the play of keys until he could stand it no longer. Then he'd take a poke. There were a lot of misspelled words in my letters that summer.

By the time Felix was ready to go wild we were living on a big ranch, and he had wrestled and romped with the Scottie dog until he was beautifully muscled. He teased the pooch unmercifully. Still, after Felix left, Tuffy lay in the driveway for weeks watching for his pal to come back, and nearly dying of heart-break. In fact his grieving was probably the real cause of his death several months later when he became ill.

We found Felix' hand and foot-prints in the mud of the barranca one day after he hadn't come in for breakfast. With them were the smaller prints of another coon. Together they all went to the willow jungle down by the river, there to become lost among so many others just like them. My heart was heavy, but this was the mating season, and

I'd known he'd go when that time came. There has been nothing to stop him, and he must do the way of wild things, as Mother Nature had intended.

I wouldn't have missed those hectic months of trying to keep everything in the house nailed down, and a little coon's life as nearly normal as possible. "Civilization" hadn't hurt him for that time. He was in good condition to make his own way. And think of all the fascinating things he could tell those underprivileged coons there in the river bottom of humans and how they act, and the wonderful toys like bathroom fixtures, washing machines, hotwater bottles and Christmas tree ornaments that they keep around for coons to play with. And they treat you like one of their family!

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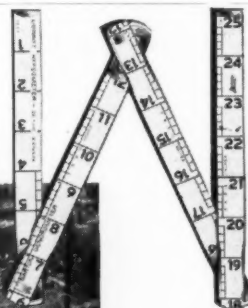


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## Alaska's Acres at Work

(From page 11)

up and up. This "if" looks like a good bet. The second—if present interest in Alaska pulp timber continues and new mills actually do materialize. This one looks like a good bet too. In June of this year the Forest Service made a preliminary award for another 50-year sale. The successful bidder on this offering was the Pacific Northern Timber Company of Wrangell, Alaska, and the terms of the contract call for building a sawmill by December 31, 1957, and a pulpmill by December 31, 1962. Since last Christmas applications have been made by two definitely interested prospective purchasers for timber to support large mills, one a newsprint mill and the other a dissolving pulpmill.

For many years, the management plans for the Tongass National Forest have visualized the development of four or more pulp mill operations, each backed by the resources of a full working circle. The plans have not been rigidly fixed, since much would depend upon the size of the mills, the kind of paper manufactured, and the pulping process used. Much would also depend upon decisions by prospective purchasers as to preferred locations for the mills. Operations located in Ketchikan, Juneau, Sitka and the Wran-

gell-Petersburg area comprise the framework on which the plans are based. Sustained-yield operation of these working circles can assure continuous availability of the timber on which the mills must live. It is probable that logging experience now being gained in southeast Alaska's pulp-timber stands, and that to come in years immediately ahead, will show that timber volume is economically available to support more than the four operations here mentioned.

Many a steamer tourist to southeast Alaska has marveled at the spectacular scenery and the seemingly untouched belts of green forest which border the water on all sides. Future steamer tourists may see at widely separated points the raw, brown splotches in the green which show that logging has been going on. The splotches may present a discord in the scenic harmony, but the discord will pass as the areas reseed naturally and turn green again. Most important of all, the brown patches, and the shades of lighter green which used to be brown, will show that, thanks to the foresight and courage of the men who planned and backed this first large-scale, modern Alaska pulpmill, Alaska's scenic forest acres are working.

## Invasion of Douglasfir

(From page 23)

the trees are freed from brush and weed competition. When this operation is complete, the stand is about

ready for the first thinning or release cutting. In Holland, I saw sod being cut and turned over by hand in the fall of the year and allowed to rot until spring before the tree is planted.

The most active phase of forest research in Europe was the species improvement program. Everywhere foresters were seeking out and improving their best native strains for seed production, developing seed orchards from plus trees and cross breeding for desirable characteristics of growth, form, and resistance to disease and insect attack. In this respect, they are a step ahead of American foresters, particularly those in the Douglasfir region.

An improvement in seed source that is worthy of attention by American foresters often takes place in the natural process of European forest

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management. European foresters usually start with a dense even-aged plantation of the best strain available, and begin thinning early in the life of the stand. Inferior stems are removed as the stand grows older and by the time it reaches an age for seed collection or natural regeneration only the finest specimens remain to perpetuate the forest. However, for economic or other reasons they do not always save the best trees and they frequently do not have a good strain to start with.

European foresters have learned to identify superior strains in their local forests, and seed from superior stands is now demanded for most artificial reforestation. They are looking forward to the day when we will do the same for Douglasfir and other American species, and also provide a record of the climate at point of seed origin.

In each country I visited, a start has been made in developing seed orchards. A dozen or more of the very finest ("plus" or "elite") trees are selected for a locality. Cuttings from these are grafted to hardy local stock, which is in turn outplanted, when well developed, in isolated patches for seed production.

Hand in hand with efforts for better seed, a genetics program is in progress to further improve forest growing stock. Species and strains are cross bred for hybrid vigor and for improved characteristics of growth rate, form, wood quality, and resistance to insects and disease.

In most European countries forest ownership follows about the same pattern. Large areas are owned by the government, smaller tracts are held by royalty or vested interests, and some is held by small individual owners such as farmers. Many municipalities and cities also own their own forests. City or town forests are usually managed for recreational use as well as for growing trees. By recreation, I mean chiefly walking or riding and picnicking. The general public has few, if any, other forest privileges. The forests are a network of footpaths and byways; and bicycle, scooter, and horseback riders and hikers are not an uncommon sight, particularly near centers of population. Hunting and fishing rights are held by the forester or landowner, or leased out to privileged individuals. Game is often sold on the open market. Wild boars are so plentiful in some forest areas that they root out and eat young growth. Elk in some localities, and deer everywhere, damage small trees by rubbing with

their horns. Browsing by deer and rabbits in very young stands is also a very common cause of loss. In some places browsing is so excessive that foresters resort to fencing plantations.

To the average American, who is accustomed to public control of game and almost unlimited use of forests for recreation, the highly restricted hunting, fishing, and recreation in European forests provide the greatest contrast between the European and the American way of life.

The ravages of war on European forests were far less than I had anticipated. True, there were places where an entire slope had been clear-cut or badly high-graded and left in a devastated condition, but this represented only a small percentage of the total forest land. The patchwise distribution of age classes that exists within the forests prevented more complete destruction. Stands vary in age from one to perhaps 80 years. Young forests were of little use to warring nations, and if an invading army cut three-fourths of all stands over 60 years of age, for example, they would still remove less than 20 percent of the total forest area in a given locality. Foresters planted many of these clear-cut areas to

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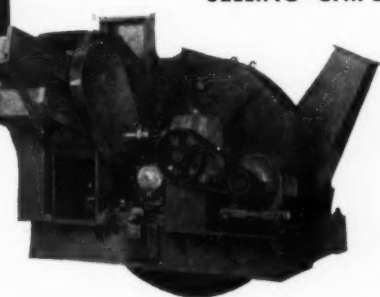
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Douglasfir or other American species, if planting stock was available.

Here and there, limited forest areas had been badly smashed by heavy bombardment. The trees from these stands, in addition to being shattered, were a manufacturing hazard because of imbedded shell fragments.

European forests are, for the most part, young, healthy, and clean—they resemble our young-growth Douglasfir forests except that their stands are not so dense. Crop after crop of even-aged stands have crowded out brush and left the forest park-like in appearance. One seldom sees a dead tree standing, or a log on the ground. Their forests can be kept in this condition because

**ERNEST A. STERLING**, nationally known consulting forester and timber engineer and a former director of The American Forestry Association, died September 1 at his home in Montrose, Penna. He was 76. Regarded by many as one of the "elder statesmen" of professional forestry, Mr. Sterling, in recent years, was always at home to young foresters and people identified with the wood industries at the Cornell Club in New York City where he spent considerable time. Mr. Sterling was born in Brooklyn, Penna., in 1878. After attending Bucknell University he transferred to Cornell University where he was graduated in 1902. After studying extensively in Switzerland and Germany, Mr. Sterling went to work for the New York State Fish and Game Commission. After a tour of duty with the Bureau of Forestry, he became forester for the Pennsylvania Railroad in 1907, a position he held for five years. Mr. Sterling then entered consulting work and at the time of his death was employed by a number of nationally known firms including the Johns-Manville Corporation and the American Creosoting Company of New York City.

they are completely accessible by road and trail, and a ready market exists for all sizes of material, even low-value or small-size pieces for fuel. There is, moreover, an ample supply of inexpensive labor. As better markets develop here at home and further improvements are made in mechanization, American foresters will doubtless achieve a similar level of excellence in forest management.

Land is at a premium in Europe, and every acre is intensively used for forest or agricultural crops. The only remaining opportunity to produce more wood is through increased yields per acre. American tree species with Douglasfir leading the field are materially helping European foresters to reach that objective.



## Thruway and Skyway

(From page 18)

Mt. Greylock, highest point in Massachusetts, rising 3000 feet in a separate range, between the Taconic and Hoosac ranges, stands almost directly east of where the Taconic Skyway might join U. S. 2, the Mohawk Trail.

The Skyway may eventually connect U. S. 20 and U. S. 2 for a superb scenic journey of nearly 25 miles, including the side trip on Berry Mountain. The Mohawk Trail climbs Petersburg Mountain into New York State, passing through land once owned by Williams College, a portion of the endowment made by Col. Ephraim Williams to found that institution. The foot trail passes on from Potter Mountain over Brodie or East Mountain, cutting across another paved road in New Ashford, over Phelps Knoll, Bee Hill, a shoulder of Petersburg Mountain, into Williamstown, and there are old trail marks on trees cut by the Williams Outing Club, years ago along these ridges rising above the Green River Valley across which looms Mt. Greylock.

But for the near future, the building of a skyline road through the State Forest is the goal sought by such organizations as the Berkshire Hills Conference, of which Donald B. Miller is president, and the Massachusetts Department of Natural Resources. The latter is endeavoring to establish a prison camp in one of the Berkshire forests and is meeting with noisy objections, despite the marked success of such a camp in the Myles Standish State Forest down east.

Pittsfield State Forest embraces historic territory. Its mountain tops and slopes were anciently the sites of homes and farms. The sober, industrious Shakers developed parts of it for timber, for herbs and roots to make medicines, for water supply, building stone, and for a time, as a holy place for worship on "Mt. Zion." Their works still survive, but mostly in the valleys where two shrunken colonies keep the faith. The names of other pioneers are memorialized in Berry Mountain and Pond, named for William Berry, a Revolutionary War veteran whose land grant straddled Pittsfield-Hancock Road, in Potter Mountain similarly recalling the Potter family that once mowed hay on the long, level top that grows blueberries and ferns today. Then there are Brickhouse

Mountain, Tower Mountain and a sole Indian memorial in *Honwee* Mountain, and Herman Melville of "Moby Dick" fame wrote lovingly of his visits to the *Taughonnuck* Range. Pittsfield's able historian, Joseph E. A. Smith, wrote of the "Ope of Promise," a deep vale that becomes a bowl of coppery hues when autumn turns the beech leaves from green to bronze. He also wrote of "The Promised Land" ironically named by people to whom it had been *promised* out of the Eph Williams holdings and who had to wait long for legal tangles to be unraveled in fulfillment of the promise.

But the Taconic Skyway is a promise that sometime surely will be fulfilled. Commissioner Arthur T. Lyman of the State Department of Natural Resources is all for it, as he is for the prison camp that would quickly make it possible, while tending to really reform some convicts which the present outmoded penal system of Massachusetts woefully fails to do.

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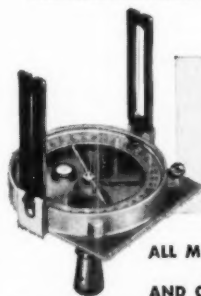
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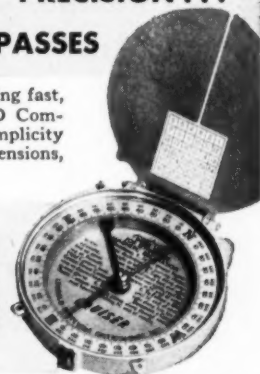
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"I hereby give, devise and bequeath \_\_\_\_\_ to The American Forestry Association, Washington, D. C., a non-profit District of Columbia corporation, or its successor, or successors, for the purpose of promoting the corporate activities of said Association."

## The Conservation Caravan

(From page 40)

Washington, Idaho and Montana seems to be bright indeed.

I shall not attempt to dwell upon the convention program itself other than to comment that Paul F. Patterson, the Governor of Oregon, delivered a great speech at the convention banquet, centering around the familiar slogan seen everywhere "Keep Oregon Green," and report that the field trips were tops. The first was to the Clatsop Tree Farm in northwest Oregon, a forest of 135,000 acres bounded by the Columbia River on the north and the Pacific Ocean on the west. In the extreme northwestern part of Oregon is the old city of Astoria which marks the terminus of the Lewis and Clark Expedition of 1904-05. Clatsop Tree Farm is operated on a sustained yield basis in which the harvest is in balance with the growth. The rich deep soil and abundant moisture make it one of the world's most productive forest sites. Western hemlock predominates, with spruce, Douglas fir, incense cedar, balsam fir and red alder in commercial quantities. The district is abundant with deer, elk, bear, beaver and smaller game animals, with salmon, steelhead and trout in the streams.

Our visit to the Weyerhaeuser plant at Longview was a revelation to one who has never seen the mechanics of a large lumber mill. Here giant Douglasfir six feet or more in diameter are mechanically handled as easily as one handles a pencil. Giant circular and band saws quickly reduce the logs to lumber. The logs are first debarked by means of a miraculous hydraulic spray which cleanly removes every particle of bark. Logs that are to be used for paper are subjected to operation "Chip." Here the logs are set on end and fed into a flume at the bottom of which rotating knives quickly reduce the logs to chips the size of a quarter, constituting the raw material from which paper is made. The Weyerhaeuser operations and those at the Crown Zellerbach plant are the heights of efficiency. Truly, the lumber industry of our great northwest is an indispensable God given resource of which the nation should be proud and which should be wisely conserved.

At the conclusion of the convention, the Shasta Daylight of the Southern Pacific Railroad brought us through southern Oregon and

northern California, around the base of beautiful Mt. Shasta and in the late evening we came to Oakland and the bright lights of the San Francisco waterfront. We had a very enjoyable day in Frisco with comfortable quarters at the Sir Francis Drake Hotel. Only a block away is the new Union Square Garage facing the St. Francis Hotel, one of San Francisco's finest. Beneath a beautiful landscaped park dominated by the Dewey Monument, private capital has constructed a four-floor parking garage with ramps and all modern conveniences. Accommodations at reasonable rentals are provided and the project is one that could well be emulated by other cities having parking problems.

A fine seafood dinner was provided for us at Fisherman's Wharf and an afternoon was spent in Golden Gate Park and in Muir Woods National Monument named in honor of John Muir, noted traveler and naturalist. Here, the government has set aside 485 acres to preserve a stand of virgin Sequoia Sempervirens, commonly called redwood. Here are the tallest living things in the world, reaching heights up to 364 feet and 20 feet in diameter. The journey along the main trails among the giant redwoods is a never to be forgotten experience.

The Santa Fe Railroad carried us by way of Merced, California, to the Yosemite National Park and here we were introduced to the Sequoia Gigantea in the Mariposa Grove of big trees, not the tallest but the oldest and largest of living things. In this grove, which is one of three in the park, are more than 200 trees 10 or more feet in diameter, the largest, the Grizzly Giant being 100 feet in circumference and 3800 years old. Here also is the famed Wawona Tunnel Tree through which busses are easily driven. El Capitan, Sentinel and Half Dome and the Bridal Veil Falls dominate the landscape in one of our most popular national parks.

For more than sixty years, one of the attractions is the daily Fire Fall at 9 P.M. as a huge pile of burning embers of fir bark is pushed over a 1400 ft. precipice atop Glacier Point, causing a glowing fall of fire resembling a waterfall.

At Grand Canyon we saw the world's most spectacular example of

the power of erosion, a chasm 217 miles long, 4 to 18 miles wide and an average depth of one mile. Scientists estimate that from seven to nine million years have been required to sculpture the fantastic shapes of these precipitous bluffs and towering crags and the work is by no means finished. Six of the seven climatic belts are represented, varying from the Mexican desert at the canyon floor to the Arctic Alpine type of the San Francisco peaks nearby. The finest and most spectacular views of the canyon are obtained from the inner canyon trails carved out of the side of the cliffs. To the uninspired, it is just a hole

in the ground—just rocks. But a nature lover said "When the Creator made Grand Canyon, He forgot to make any adjectives to go with it." And John C. Van Dyke wrote these intriguing words: "The great chasm cannot be successfully exploited commercially or artistically. It cannot be plowed or plotted or poetized or painted. It is too big for one to do more than creep along the rim and wonder over it, for some things should be beyond us—aspired to but never attained."

At long last, we came to the end of the trail and one of the Santa Fe's fine trains returned us to Chicago and then home.

## Northwest Rediscovered

(From page 33)

what he believes to be a reasonably good balance between public and private ownership of forestlands in the Northwest, the speaker urged that the public not go to extremes in either direction in upsetting that balance. E. L. Demmon, president of the Society of American Foresters, and a director of AFA, urged that the 1500 foresters in Washington and Oregon support both the AFA and the SAF in their respective programs.

On the final day the AFA busses started for Longview where R. A. Long, of the Long-Bell Lumber Company, had much to do with the laying out and planning of that strategically-located city. First stop was the world's largest integrated forest products plant operated by the Weyerhaeuser Timber Company where many visitors had the opportunity to watch accomplished boss sawyers in action for the first time. Three sawmills, two pulp mills, a plywood plant, a Pres-to-log plant, a bark products plant, power house, and a plant that produces wood trusses and laminated beams are all located on this one plant site. Tour through the plywood and bark products departments proved especially interesting to the visitors—the latter stressing the emphasis on all-out utilization that characterizes this operation.

Following a lunch at the company's cafeteria and a description of the firm's many activities by Everett Barton, of the personnel department, the group moved on to another example of intensive utilization in action, the Longview Fibre Company's 700-ton a day mill where production is sustained by sawmill leftovers as

far as 200 miles away. Mr. Robert Werthheimer, who sometimes refers to himself as "the garbage man of the Pacific Northwest," has a string of trucks that pick up leftovers in both Washington and Oregon and which are mobile advertisements for good forestry with their slogans "Wood Chips Saved from Waste." This firm has its own chipping plant at Eugene, Oregon, where sawmill trimmings, edgings and slabs purchased from other firms are chipped and then hauled to Longview. Unfortunately, the visitors were unable to make a scheduled visit to the Long-Bell Lumber Company at Longview but all hands were grateful to that company for providing them with canes to lean on the final day. Somewhat tired but still dogged, the AFA delegates arrived back in Portland that evening happy in the thought that theirs' had been one of the most comprehensive forestry tours in Northwest history.



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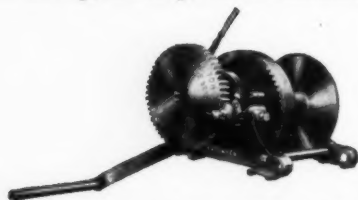
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# Reading About Conservation

By ARTHUR B. MEYER

*Exploring Our National Parks and Monuments* by Devereux Butcher (Houghton Mifflin Co. 288 pp. cloth \$4.50 paper \$2.50) is a fourth edition just off the press. Its author is editor of *National Parks Magazine*. Pick up the book, and we're sure you'll be off—off through the pages of the book and off for any park or monument that you can possibly arrange to visit. First attraction of the book is its photographs. To describe them accurately requires the use of a word somewhat outworn from too much use—superb. We will therefore restrain ourselves and report that they are quite good. There are 26 illustrations in color and 280 in black and white. They cover scenic gems of the landscape as well as close-ups of both common and little known wildlife and plants that inhabit the areas. Gila monsters, mountain sky lines, cactus, eyeless fish, all are present in what must be one of the best selections of photographs from our parks ever gathered together in one place for public viewing. A large portion of the photographs are by the author; the color spread is new with this addition of the book.

It is not necessary to say, "On the other hand, the text . . ." for the text does just what the author meant it to do in a book of this nature. Primarily, it tells the reader about the physical aspects of the areas: where they are, how big they are, when they were established, their major features, season of operation, what lodging facilities are available. In this process the major portion of the book is divided into two sections, one on 26 national parks, the other on 38 nature monuments (as differentiated from historical and military monuments, etc.). A map follows each section.

In these two main sections the areas are listed alphabetically, making ready reference possible, and photographs are placed conveniently near so that you don't have to read one place and search for pictures somewhere else. For each area the

author describes the geologic, scenic, vegetative or other main feature that makes the area unique, plus varying amounts of additional information such as what species of wildlife might be encountered and pertinent historical events.

These two sections are followed by a brief resume of other nature reservations in the country—state parks, national forest wilderness areas, and national wildlife refuges. Then comes a one page essay by Sigurd Olson, "We Need Wilderness." Very well done.

The reader flicks over a page, well satisfied by his tour with Mr. Butcher and pleased at the perception of Mr. Olson's observations. He is drawing toward the close of the book. He reads: "Baby Leaves-of-Sage left the imprint of her bare bottom in the deep, powdery dust of the compound floor and then, from where she had been sitting, made a line of tiny faltering footprints to the doorway of her ground-floor home. . . Today she played alone." There follows a touchingly written story of the devastation of Beautiful Village by a band of nomads at a time when its inhabitants were being forced to migrate because of prolonged and disastrous drought. The ruins of "Beautiful Village," Pueblo Bonito, stand to this day in the Chaco Canyon National Monument in New Mexico, although the city was built between 919 A.D. and 1130.

A brief but informative history, "The American Indian," written by Dr. Frank H. H. Roberts of the Bureau of American Ethnology, together with the story of Leaves-of-Sage lend considerable meaning to the following section of the book. It deals with national archeological monuments. The reason for their inclusion in a book covering the parks and nature monuments is apparent. The Indians and their life on this continent before we came are a part of the whole scene, bits of which the park system is designed to save for posterity and our own present enjoyment.





SOME OF THE BEAUTY SPOTS IN GLACIER NATIONAL PARK—  
Top photo, Mount Wilbur; Middle photo, Saint Mary's Lake; bottom  
photo, Sinopah Mountain and Two Medicine Lake. Photos are by  
Devereux Butcher and have previously been published only in the  
4th edition of his *Exploring Our National Parks and Monuments*

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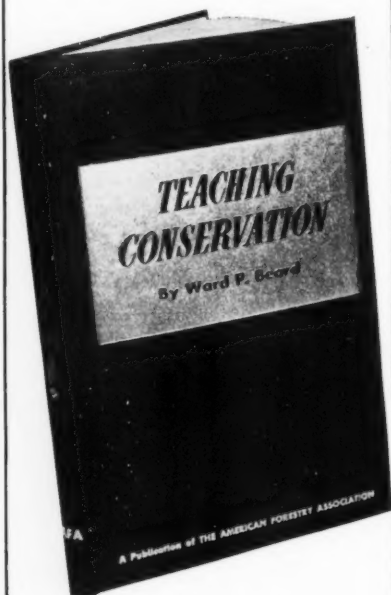
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## Letters

(From page 4)

### Conservation Award

EDITOR:

Mr. Gilbert Le Kander's letter in your August issue questioning the propriety of the award the National Parks Association, with several other organizations, gave Congressman Lee Metcalf, of Montana, for his conservation achievements in Congress warrants thoughtful reply.

In his freshman year in Congress, Mr. Metcalf has served vigorously to defend the natural resources of the nation in many directions. He has consistently placed the national interest foremost, recognizing that if the national welfare is benefited, so are his constituents. A few examples, among many, from his record will indicate his accomplishments.

Representing a ranching area, Mr. Metcalf understood the selfish intent behind the notorious stockmen's bills, and actively opposed not only the initial legislation, but also the later modified attempts to emasculate Forest Service administration of the national forests. He introduced H.R. 6081 to strengthen the Taylor Grazing Act and to set up within that Act multiple-use advisory boards that would recognize watershed protection, timber values, wildlife and recreation interests, as well as the grazing interests that now dominate administration of these lands. . . . He fought vigorously for adequate appropriations for the Fish and Wildlife Service on the floor of the House, and was influential in preventing misuse of refuge funds as proposed by the House Committee. He introduced H.R. 10242, to ensure proper use of the 13 million dollar reserve in the Pittman-Robertson fund, which has been endowed by the Department of the Interior and the Bureau of the Budget. He defended National Park Service appropriations, and opposed authorization of Echo Park dam that would flood Dinosaur National Monument.

The award was conferred on Mr. Metcalf, and on his Republican colleague, Congressman Leon H. Gavin, of Pennsylvania, primarily because of their leadership in preventing enactment of H.R. 4646, special interest legislation that would have had far-reaching consequences seriously undermining the integrity of the national forests and endangering the national parks and all other federal lands.

Mr. Le Kander evidently was familiar only with Mr. Metcalf's bill H.R. 6687 that proposed a study of the feasibility of the Glacier View damsite. The National Parks Association invited Mr. Metcalf's attention to the advisability of redrafting the bill to provide for a study, if desirable, of feasible alternatives to the Glacier View dam. He assured us that he had not intended his bill to be an endorsement of the Glacier View dam, and accepted our suggestion. Actually, he let the bill die without requesting hearings on it. Granting H.R. 6687 was not well-devised, Mr. Metcalf demonstrated his recognition of the best interest of Glacier National Park in the matter.

The several organizations that honored Congressman Metcalf and Congressman Gavin did so because they believed it proper to credit fine service to the cause of conservation.

**Fred M. Packard**  
Executive Secretary  
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# Washington



# Lookout

By ALBERT G. HALL

THE RECORD OF THE SECOND SESSION OF THE 83rd CONGRESS stacks up very well from a conservation standpoint. In the matter of appropriations, for example, the Congress went farther on most forestry items than the Administration requested, an indication that the various conservation lobbies have more weight on Capitol Hill than do the Administration's economy-minded budgeteers. While it is true that the Tennessee Valley Authority's resource development program did not receive the full amount requested by TVA, the program was not eliminated as was first anticipated. TVA resource development was authorized to spend \$1 million of which \$600,000 is to be derived from TVA operations.

THE U.S. FOREST SERVICE WAS GRANTED A TOTAL OF \$104,670,477 in direct and special appropriations and funds in the Department of Agriculture supply bill, as compared with a budget request of \$101,368,087. And then, in a supplemental appropriation it was granted an additional \$6.5 million for timber access roads (bringing the total for access roads to \$22.5 million for Fiscal Year 1955), an additional \$505,500 for research, and \$205,000 for increased protection of national forests in California.

WATERSHED PROTECTION AND FLOOD PREVENTION ACTIVITIES of the Department of Agriculture were financed by \$5,500,000 and \$7,282,000, respectively, in the regular appropriation, both of which were in excess of the budget request. Then an additional \$7,750,000 was added in a supplemental appropriation for soil and water conservation work under the new small watershed act.

SIMILARLY IN THE INTERIOR DEPARTMENT, RESOURCE MANAGEMENT activities were given encouraging treatment in the regular departmental appropriation, and were augmented in the supplemental appropriation, particularly as regards roads and trails. This comes as a result of the 1954 revision of the Federal Aid Highway Act, another Second Session accomplishment, which provides increased authorizations for forest roads and trails, park roads and trails, and roads on Indian lands and unreserved public lands. The Highway Act also provides for the agencies' obligating by contracts the full amounts of the authorizations, prior to actual appropriation.

THE LONG-LASTING CONTROVERSY OVER THE JURISDICTION OF CERTAIN FOREST LANDS in the Northwest was finally resolved. The controverted Oregon and California Grant Lands, over which at times both the Forest Service and the Department of the Interior claimed jurisdiction, were finally declared O & C lands for purposes of revenue-sharing with the O & C counties. To facilitate their administration, the Forest Service was given administrative jurisdiction—to handle them in conjunction with intermingled national forest lands. Authority is also granted for the exchange of O & C and national forest lands in the area to simplify administration.

INDIAN LANDS, HELD IN TRUST BY THE UNITED STATES FOR THE INDIANS, began to move away from federal supervision. A number of bills for the termination of federal supervision over the lands and the individuals of the various tribes and bands were introduced. Among the forest-owning Indians, the Menominee Tribe of Wisconsin, the Klamath Tribe of Oregon, and miscellaneous tribes and bands in western Oregon have been released—or rather, are authorized to be released over a period of years—from direct federal supervision. Provision is made for

(Turn to next page)



appraisal of the Indian land, for its distribution to the Indians in fee simple title, or for the information of tribal organizations for its management. A good brand of forestry has been practiced generally on the Indian lands, under the guidance of the foresters in the Bureau of Indian Affairs. Conservationists are watching the "release" of the Indians closely to see if good forestry practices will continue on these lands.

TWO MORE INTERSTATE FOREST FIRE PROTECTION COMPACTS have been approved by the Congress to permit states to pool their planning, manpower and equipment. Patterned somewhat after the Northeastern Interstate Compact, now with several years commendable performance to its record, the new compacts affect the Southern and Southeastern states from Texas to Virginia.

LEASE OR SALE OF GOVERNMENT LANDS HAS BEEN CONSIDERABLY SIMPLIFIED and brought up to date by three acts of Congress. One permits the sale or lease of five-acre tracts to business associations, corporations, states or other governmental units for residence, recreational, business, or community purposes. Another permits sale or lease of tracts up to 640 acres in size to states and local political subdivisions or to nonprofit organizations for recreational purposes. And a third provides for 30-year leases, permits or easements for use by public purposes.

THESE BILLS, IN EFFECT, MODERNIZE THE LEGISLATION AND THE POLICIES pertaining to public land occupancy and use. They permit communities near public lands and organizations of a non-profit nature to plan for long-term use of small areas for recreational development, to allow forest-supported industries to lease operating sites for periods of sufficient length to warrant capital investment, to allow state highway agencies, for example, to develop facilities for housing, maintenance and repair of their equipment.

AN ANNUAL AUTHORIZATION OF \$500,000 FOR ACQUISITION OF LANDS WITHIN NATIONAL PARKS was approved. The funds are to be used to match donations of private organizations for the purchase of interior holdings. At the time of the passage the Park Service had an offer of donation of \$500,000 for purchase of lands in the Jackson Hole Area. The full amount was appropriated for Fiscal Year 1955 in a supplemental appropriation. The authorization applies only to national parks and not to national monuments or other parts of the national park system.

THE SMALL WATERSHED ACT UNDER WHICH THE SECRETARY OF AGRICULTURE may cooperate with states and local units of government in the protection and management, including works of improvement (dams), of small watersheds, is being hailed as a great step forward in conservation. An Administration measure, it had the support of most conservation organizations. The bulk of the federal activity under the new law will be by the Soil Conservation Service and the Forest Service.

THE BILL TO STABILIZE THE GRAZING INDUSTRY, ANOTHER ADMINISTRATION MEASURE, did not fare so well. Although it received favorable treatment in the Senate, the House did not let it get out of committee. An attempt was made to append the measure to the farm support bill; but the House and Senate conferees deleted it. After amendment in the Senate, the bill lacked the objectionable features of some of the earlier so-called "stockmen's bills." It would have protected the investments of forest permittees, and would have solved some of the problems—real and imaginary—between national forest users and administrators. One feature of the measure would have provided procedures for appeals from administrative decisions affecting any occupancy and use of the national forests. The bill had a wide variety of support and of opposition.

BILLS TO CORRECT ABUSES OR LOOPHOLES IN THE MINING LAWS as applied to national forest lands, although initially pressed by the Administration, also became lost in the effort to meet higher priority problems. These are still on the program, however, and with the grazing bill may be expected to make their appearance early in the next Congress.

THE BAKER BILL TO ESTABLISH AN APPROPRIATION BASE FOR WILDLIFE AND RECREATION in the national forests, by allocating 10 percent of national forest receipts to wildlife and recreational development also died with the adjournment of the Congress. The interest stimulated by supporters of the bill, however, is such that a similar measure probably will appear early next year.



## The Indian and the Forest

(From page 25)

As along the seaboard, so in the interior valleys and on the highlands there was evidence (though records are few) that the Indians sometimes mutilated the woodland. The western New York forests were the home of the highly-civilized Iroquois, exemplary farmers as well as creators of an ingenious political confederation. When the region was opened to settlement early in the 19th century travellers who followed the deeply-grooved, circuitous Indian trails from the Genesee River to Niagara Falls noted plenty of evidence of forest denudation. For example, in his journey to Niagara in 1805 Timothy Bigelow saw around Batavia, New York, hundreds of acres "on which there is scarce a single tree. . . at most but an oak or a poplar or two, scattered at great distances. . . In many of these open grounds, a man may be seen at a distance of two miles. . . There are patches of trees interspersed among these open grounds. They are the same kind as are to be met with in the neighboring country, and are of various extent, but in general there does not seem to be wood enough growing on this plain for the accommodation of its future inhabitants. . . [Yet] the want of houses and fences and more especially the solemn stillness that prevails over them, admonishes you that you are in a wilderness."

Bigelow logically assumed that this wasteland was the handiwork of Indians who had repeatedly fired the woods, "so that the tender grass, afterwards springing up, might entice the deer and other game out into a situation where they would be exposed to the hunter. What serves to confirm this opinion is the frequent appearance of charcoal and burnt sticks, and the abundance of young trees which are now shooting up."

Apart from their burnings and small clearings, however, the Indians levied but a light toll upon the forest. Being a stone age people, they had little use for wood except to kindle their campfires or fashion their wonderful canoes. Some tribes, such as the Iroquois and the North Pacific Coast Indians, built fairly snug wooden houses.

Among the best of the Indian dwellings was the Iroquois tepee, a sort of "multi-unit" dwelling. Its

frame consisted of saplings, usually hickory, set opposite each other in pairs, with the tops bent over and lashed to form an arch. On this frame split poles were slung close together, like lath in a modern house, and shingled with squares of bark. Upright poles held the shingles in place. The roof was left partly agape to permit smoke to escape, while a vent in the end wall served as a door.

The Iroquois tepee was about six feet long. Here the fires were kept burning—one for each pair or for two pair of families—on either side of the passage, partitioned with saplings covered with bark or deerskin. Sometimes a vestibule encompassing the width of the tepee was marked off for storing food and weapons. The various parts of this fairly stalwart shelter as well as its fastenings were held together by the inner bark of elm, strips of deerskin, trailing vines or the tendons of wild animals.

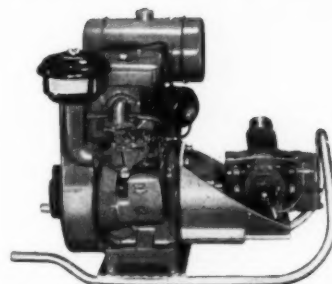
The North Pacific Coast tribes, dwelling in the most luxuriant forest on the continent, probably made the best use of the available timber. The trunk, limbs and other parts of cedar, birch, willow, and other species were cleverly fashioned into canoes, huts, cooking utensils, hunting weapons, fish nets, matting and clothing.

As the white man filled up the continent forest exploitation was stepped up. During the 19th century wholesale land clearing, burning, and logging not only removed the virgin forest over the greater part of the United States but entirely deforested large sections of it. The white man, however, driven by relentless economic and population pressure, only continued on a vaster and more intensive scale what the Indian, few in numbers, had begun.

Ironically, when the Indian was pushed onto reservations in the 19th century, he often adopted a more destructive attitude toward the forest than the white man whom he feared and despised. In some localities the red man became more greedy and heedless of the natural resources—especially grazing land and forest—than his white conqueror.

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Photo submitted by R. E. Schweitz

This odd-shaped tree is a favorite "horse" for youngsters visiting the Prince William State Park near Dumfries, Virginia. The tree is at the beginning of one of the Park's many lovely nature trails.

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